

## SEQUENCE LISTING

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 Heissmeyer, Vigo

<120> Modulation of Anergy and Methods for  
 Isolating Anergy-Modulating Compounds

<130> 10861-033US1

<140> US 10/575,932

<141> 2006-04-14

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<151> 2004-03-29

<150> US 60/512,235

<151> 2003-10-17

<160> 31

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 862

<212> PRT

<213> Homo sapiens

<400> 1

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Lys	Lys	Asn	Trp	Phe	Gly	Pro	Ser	Pro	Tyr	Val	Glu	Val	Thr	Val	Asp
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65					70					75				80	
Phe	Arg	Val	Trp	Ser	His	Gln	Thr	Leu	Lys	Ser	Asp	Val	Leu	Leu	Gly
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Thr	Ala	Ala	Leu	Asp	Ile	Tyr	Glu	Thr	Leu	Lys	Ser	Asn	Asn	Met	Lys
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Leu	Glu	Glu	Val	Val	Val	Thr	Leu	Gln	Leu	Gly	Gly	Asp	Lys	Glu	Pro
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Thr	Glu	Thr	Ile	Gly	Asp	Leu	Ser	Ile	Cys	Leu	Asp	Gly	Leu	Gln	Leu
	130					135					140				
Glu	Ser	Glu	Val	Val	Thr	Asn	Gly	Glu	Thr	Thr	Cys	Ser	Glu	Ser	Ala
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Ser	Gln	Asn	Asp	Asp	Gly	Ser	Arg	Ser	Lys	Asp	Glu	Thr	Arg	Val	Ser
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Thr	Asn	Gly	Ser	Asp	Asp	Pro	Glu	Asp	Ala	Gly	Ala	Gly	Glu	Asn	Arg
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Arg	Val	Ser	Gly	Asn	Asn	Ser	Pro	Ser	Leu	Ser	Asn	Gly	Gly	Phe	Lys

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Arg	Pro	Ala	Ser	Val	Asn	Gly	Ser	Pro	Ser	Ala	Thr	Ser	Glu	Ser	Asp
225	230					235					240				
Gly	Ser	Ser	Thr	Gly	Ser	Leu	Pro	Pro	Thr	Asn	Thr	Asn	Thr	Asn	Thr
245					250					255					
Ser	Glu	Gly	Ala	Thr	Ser	Gly	Leu	Ile	Ile	Pro	Leu	Thr	Ile	Ser	Gly
260					265					270					
Gly	Ser	Gly	Pro	Arg	Pro	Leu	Asn	Pro	Val	Thr	Gln	Ala	Pro	Leu	Pro
275					280					285					
Pro	Gly	Trp	Glu	Gln	Arg	Val	Asp	Gln	His	Gly	Arg	Val	Tyr	Tyr	Val
290	295					300									
Asp	His	Val	Glu	Lys	Arg	Thr	Thr	Trp	Asp	Arg	Pro	Glu	Pro	Leu	Pro
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Pro	Gly	Trp	Glu	Arg	Arg	Val	Asp	Asn	Met	Gly	Arg	Ile	Tyr	Tyr	Val
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Asp	His	Phe	Thr	Arg	Thr	Thr	Thr	Trp	Gln	Arg	Pro	Thr	Leu	Glu	Ser
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Val	Arg	Asn	Tyr	Glu	Gln	Trp	Gln	Leu	Gln	Arg	Ser	Gln	Leu	Gln	Gly
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Ala	Met	Gln	Gln	Phe	Asn	Gln	Arg	Phe	Ile	Tyr	Gly	Asn	Gln	Asp	Leu
370	375					380									
Phe	Ala	Thr	Ser	Gln	Ser	Lys	Glu	Phe	Asp	Pro	Leu	Gly	Pro	Leu	Pro
385	390					395					400				
Pro	Gly	Trp	Glu	Lys	Arg	Thr	Asp	Ser	Asn	Gly	Arg	Val	Tyr	Phe	Val
405					410					415					
Asn	His	Asn	Thr	Arg	Ile	Thr	Gln	Trp	Glu	Asp	Pro	Arg	Ser	Gln	Gly
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Gln	Leu	Asn	Glu	Lys	Pro	Leu	Pro	Glu	Gly	Trp	Glu	Met	Arg	Phe	Thr
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Tyr	Ile	Asp	Pro	Arg	Thr	Gly	Lys	Ser	Ala	Leu	Asp	Asn	Gly	Pro	Gln
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Ile	Ala	Tyr	Val	Arg	Asp	Phe	Lys	Ala	Lys	Val	Gln	Tyr	Phe	Arg	Phe
485					490					495					
Trp	Cys	Gln	Gln	Leu	Ala	Met	Pro	Gln	His	Ile	Lys	Ile	Thr	Val	Thr
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Gly	Leu	Asp	Tyr	Gly	Gly	Val	Ala	Arg	Glu	Trp	Phe	Phe	Leu	Leu	Ser
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His	Glu	Val	Leu	Asn	Pro	Met	Tyr	Cys	Leu	Phe	Glu	Tyr	Ala	Gly	Lys
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Asp	Asn	Tyr	Cys	Leu	Gln	Ile	Asn	Pro	Ala	Ser	Tyr	Ile	Asn	Pro	Asp
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His	Leu	Lys	Tyr	Phe	Arg	Phe	Ile	Gly	Arg	Phe	Ile	Ala	Met	Ala	Leu
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Phe	His	Gly	Lys	Phe	Ile	Asp	Thr	Gly	Phe	Ser	Leu	Pro	Phe	Tyr	Lys
610	615					620									
Arg	Ile	Leu	Asn	Lys	Pro	Val	Gly	Leu	Lys	Asp	Leu	Glu	Ser	Ile	Asp
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Pro	Glu	Phe	Tyr	Asn	Ser	Leu	Ile	Trp	Val	Lys	Glu	Asn	Asn	Ile	Glu
645					650					655					

Glu Cys Asp Leu Glu Met Tyr Phe Ser Val Asp Lys Glu Ile Leu Gly  
 660 665 670  
 Glu Ile Lys Ser His Asp Leu Lys Pro Asn Gly Gly Asn Ile Leu Val  
 675 680 685  
 Thr Glu Glu Asn Lys Glu Glu Tyr Ile Arg Met Val Ala Glu Trp Arg  
 690 695 700  
 Leu Ser Arg Gly Val Glu Glu Gln Thr Gln Ala Phe Phe Glu Gly Phe  
 705 710 715 720  
 Asn Glu Ile Leu Pro Gln Gln Tyr Leu Gln Tyr Phe Asp Ala Lys Glu  
 725 730 735  
 Leu Glu Val Leu Leu Cys Gly Met Gln Glu Ile Asp Leu Asn Asp Trp  
 740 745 750  
 Gln Arg His Ala Ile Tyr Arg His Tyr Ala Arg Thr Ser Lys Gln Ile  
 755 760 765  
 Met Trp Phe Trp Gln Phe Val Lys Glu Ile Asp Asn Glu Lys Arg Met  
 770 775 780  
 Arg Leu Leu Gln Phe Val Thr Gly Thr Cys Arg Leu Pro Val Gly Gly  
 785 790 795 800  
 Phe Ala Asp Leu Met Gly Ser Asn Gly Pro Gln Lys Phe Cys Ile Glu  
 805 810 815  
 Lys Val Gly Lys Glu Asn Trp Leu Pro Arg Ser His Thr Cys Phe Asn  
 820 825 830  
 Arg Leu Asp Leu Pro Pro Tyr Lys Ser Tyr Glu Gln Leu Lys Glu Lys  
 835 840 845  
 Leu Leu Phe Ala Ile Glu Glu Thr Glu Gly Phe Gly Gln Glu  
 850 855 860

<210> 2

<211> 854

<212> PRT

<213> Mus musculus

<400> 2

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 Ala Lys Leu Lys Glu Asn Lys Lys Asn Trp Phe Gly Pro Ser Pro Tyr  
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 Val Glu Val Thr Val Asp Gly Gln Ser Lys Lys Thr Glu Lys Cys Asn  
 35 40 45  
 Asn Thr Asn Ser Pro Lys Trp Lys Gln Pro Leu Thr Val Ile Val Thr  
 50 55 60  
 Pro Thr Ser Lys Leu Cys Phe Arg Val Trp Ser His Gln Thr Leu Lys  
 65 70 75 80  
 Ser Asp Val Leu Leu Gly Thr Ala Gly Leu Asp Ile Tyr Glu Thr Leu  
 85 90 95  
 Lys Ser Asn Asn Met Lys Leu Glu Glu Val Val Met Thr Leu Gln Leu  
 100 105 110  
 Val Gly Asp Lys Glu Pro Thr Glu Thr Met Gly Asp Leu Ser Val Cys  
 115 120 125  
 Leu Asp Gly Leu Gln Val Glu Ala Glu Val Val Thr Asn Gly Glu Thr  
 130 135 140  
 Ser Cys Ser Glu Ser Thr Thr Gln Asn Asp Asp Gly Cys Arg Thr Arg  
 145 150 155 160  
 Asp Asp Thr Arg Val Ser Thr Asn Gly Ser Glu Asp Pro Glu Val Ala  
 165 170 175  
 Ala Ser Gly Glu Asn Lys Arg Ala Asn Gly Asn Asn Ser Pro Ser Leu  
 180 185 190

Ser Asn Gly Gly Phe Lys Pro Ser Arg Pro Pro Arg Pro Ser Arg Pro  
 195 200 205  
 Pro Pro Pro Thr Pro Arg Arg Pro Ala Ser Val Asn Gly Ser Pro Ser  
 210 215 220  
 Thr Asn Ser Asp Ser Asp Gly Ser Ser Thr Gly Ser Leu Pro Pro Thr  
 225 230 235 240  
 Asn Thr Asn Val Asn Thr Ser Thr Ser Glu Gly Ala Thr Ser Gly Leu  
 245 250 255  
 Ile Ile Pro Leu Thr Ile Ser Gly Gly Ser Gly Pro Arg Pro Leu Asn  
 260 265 270  
 Thr Val Ser Gln Ala Pro Leu Pro Pro Gly Trp Glu Gln Arg Val Asp  
 275 280 285  
 Gln His Gly Arg Val Tyr Tyr Val Asp His Val Glu Lys Arg Thr Thr  
 290 295 300  
 Trp Asp Arg Pro Glu Pro Leu Pro Pro Gly Trp Glu Arg Arg Val Asp  
 305 310 315 320  
 Asn Met Gly Arg Ile Tyr Tyr Val Asp His Phe Thr Arg Thr Thr Thr  
 325 330 335  
 Trp Gln Arg Pro Thr Leu Glu Ser Val Arg Asn Tyr Glu Gln Trp Gln  
 340 345 350  
 Leu Gln Arg Ser Gln Leu Gln Gly Ala Met Gln Gln Phe Asn Gln Arg  
 355 360 365  
 Phe Ile Tyr Gly Asn Gln Asp Leu Phe Ala Thr Ser Gln Asn Lys Glu  
 370 375 380  
 Phe Asp Pro Leu Gly Pro Leu Pro Pro Gly Trp Glu Lys Arg Thr Asp  
 385 390 395 400  
 Ser Asn Gly Arg Val Tyr Phe Val Asn His Asn Thr Arg Ile Thr Gln  
 405 410 415  
 Trp Glu Asp Pro Arg Ser Gln Gly Gln Leu Asn Glu Lys Pro Leu Pro  
 420 425 430  
 Glu Gly Trp Glu Met Arg Phe Thr Val Asp Gly Ile Pro Tyr Phe Val  
 435 440 445  
 Asp His Asn Arg Arg Ala Thr Thr Tyr Ile Asp Pro Arg Thr Gly Lys  
 450 455 460  
 Ser Ala Leu Asp Asn Gly Pro Gln Ile Ala Tyr Val Arg Asp Phe Lys  
 465 470 475 480  
 Ala Lys Val Gln Tyr Phe Arg Phe Trp Cys Gln Gln Leu Ala Met Pro  
 485 490 495  
 Gln His Ile Lys Ile Thr Val Thr Arg Lys Thr Leu Phe Glu Asp Ser  
 500 505 510  
 Phe Gln Gln Ile Met Ser Phe Ser Pro Gln Asp Leu Arg Arg Arg Leu  
 515 520 525  
 Trp Val Ile Phe Pro Gly Glu Gly Leu Asp Tyr Gly Gly Val Ala  
 530 535 540  
 Arg Glu Trp Phe Phe Leu Ser His Glu Val Leu Asn Pro Met Tyr  
 545 550 555 560  
 Cys Leu Phe Glu Tyr Ala Gly Lys Asp Asn Tyr Cys Leu Gln Ile Asn  
 565 570 575  
 Pro Ala Ser Tyr Ile Asn Pro Asp His Leu Lys Tyr Phe Arg Phe Ile  
 580 585 590  
 Gly Arg Phe Ile Ala Met Ala Leu Phe His Gly Lys Phe Ile Asp Thr  
 595 600 605  
 Gly Phe Ser Leu Pro Phe Tyr Lys Arg Ile Leu Asn Lys Pro Val Gly  
 610 615 620  
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 625 630 635 640  
 Trp Val Lys Glu Asn Asn Ile Glu Glu Cys Gly Leu Glu Met Tyr Phe

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		675					680					685					
Ile	Arg	Met	Val	Ala	Glu	Trp	Arg	Leu	Ser	Arg	Gly	Val	Glu	Glu	Gln		
	690					695					700						
Thr	Gln	Ala	Phe	Phe	Glu	Gly	Phe	Asn	Glu	Ile	Leu	Pro	Gln	Gln	Tyr		
705					710					715					720		
Leu	Gln	Tyr	Phe	Asp	Ala	Lys	Glu	Leu	Glu	Val	Leu	Leu	Cys	Gly	Met		
				725					730					735			
Gln	Glu	Ile	Asp	Leu	Asn	Asp	Trp	Gln	Arg	His	Ala	Ile	Tyr	Arg	His		
			740					745					750				
Tyr	Thr	Arg	Thr	Ser	Lys	Gln	Ile	Met	Trp	Phe	Trp	Gln	Phe	Val	Lys		
		755					760					765					
Glu	Ile	Asp	Asn	Glu	Lys	Arg	Met	Arg	Leu	Leu	Gln	Phe	Val	Thr	Gly		
	770					775					780						
Thr	Cys	Arg	Leu	Pro	Val	Gly	Gly	Phe	Ala	Asp	Leu	Met	Gly	Ser	Asn		
785					790				795						800		
Gly	Pro	Gln	Lys	Phe	Cys	Ile	Glu	Lys	Val	Gly	Lys	Glu	Asn	Trp	Leu		
				805					810					815			
Pro	Arg	Ser	His	Thr	Cys	Phe	Asn	Arg	Leu	Asp	Leu	Pro	Pro	Tyr	Lys		
			820					825					830				
Ser	Tyr	Glu	Gln	Leu	Lys	Glu	Lys	Leu	Leu	Phe	Ala	Ile	Glu	Glu	Thr		
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Glu	Gly	Phe	Gly	Gln	Glu												
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&lt;210&gt; 3

&lt;211&gt; 900

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3

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Asn	Ser	Arg	Ile	Val	Arg	Val	Arg	Val	Ile	Ala	Gly	Ile	Gly	Leu	Ala		
			20					25					30				
Lys	Lys	Asp	Ile	Leu	Gly	Ala	Ser	Asp	Pro	Tyr	Val	Arg	Val	Thr	Leu		
		35					40					45					
Tyr	Asp	Pro	Met	Asn	Gly	Val	Leu	Thr	Ser	Val	Gln	Thr	Lys	Thr	Ile		
	50				55						60						
Lys	Lys	Ser	Leu	Asn	Pro	Lys	Trp	Asn	Glu	Glu	Ile	Leu	Phe	Arg	Val		
65					70				75						80		
His	Pro	Gln	Gln	His	Arg	Leu	Leu	Phe	Glu	Val	Phe	Asp	Glu	Asn	Arg		
				85					90					95			
Leu	Thr	Arg	Asp	Asp	Phe	Leu	Gly	Gln	Val	Asp	Val	Pro	Leu	Tyr	Pro		
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Leu	Pro	Thr	Glu	Asn	Pro	Arg	Leu	Glu	Arg	Pro	Tyr	Thr	Phe	Lys	Asp		
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Phe	Val	Leu	His	Pro	Arg	Ser	His	Lys	Ser	Arg	Val	Lys	Gly	Tyr	Leu		
	130					135					140						
Arg	Leu	Lys	Met	Thr	Tyr	Leu	Pro	Lys	Thr	Ser	Gly	Ser	Glu	Asp	Asp		
145					150					155					160		
Asn	Ala	Glu	Gln	Ala	Glu	Glu	Leu	Glu	Pro	Gly	Trp	Val	Val	Leu	Asp		
			165					170						175			
Gln	Pro	Asp	Ala	Ala	Cys	His	Leu	Gln	Gln	Gln	Gln	Glu	Pro	Ser	Pro		

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Leu	Pro	Pro	Gly	Trp	Glu	Glu	Arg	Gln	Asp	Ile	Leu	Gly	Arg	Thr	Tyr
		195					200					205			
Tyr	Val	Asn	His	Glu	Ser	Arg	Arg	Thr	Gln	Trp	Lys	Arg	Pro	Thr	Pro
	210					215					220				
Gln	Asp	Asn	Leu	Thr	Asp	Ala	Glu	Asn	Gly	Asn	Ile	Gln	Leu	Gln	Ala
225					230					235					240
Gln	Arg	Ala	Phe	Thr	Thr	Arg	Arg	Gln	Ile	Ser	Glu	Glu	Thr	Glu	Ser
			245					250						255	
Val	Asp	Asn	Arg	Glu	Ser	Ser	Glu	Asn	Trp	Glu	Ile	Ile	Arg	Glu	Asp
		260					265						270		
Glu	Ala	Thr	Met	Tyr	Ser	Asn	Gln	Ala	Phe	Pro	Ser	Pro	Pro	Pro	Ser
	275					280						285			
Ser	Asn	Leu	Asp	Val	Pro	Thr	His	Leu	Ala	Glu	Glu	Leu	Asn	Ala	Arg
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Leu	Thr	Ile	Phe	Gly	Asn	Ser	Ala	Val	Ser	Gln	Pro	Ala	Ser	Ser	Ser
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Asn	His	Ser	Ser	Arg	Arg	Gly	Ser	Leu	Gln	Ala	Tyr	Thr	Phe	Glu	Glu
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Gln	Pro	Thr	Leu	Pro	Val	Leu	Leu	Pro	Thr	Ser	Ser	Gly	Leu	Pro	Pro
		340					345						350		
Gly	Trp	Glu	Glu	Lys	Gln	Asp	Glu	Arg	Gly	Arg	Ser	Tyr	Tyr	Val	Asp
	355					360						365			
His	Asn	Ser	Arg	Thr	Thr	Thr	Trp	Thr	Lys	Pro	Thr	Val	Gln	Ala	Thr
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Val	Glu	Thr	Ser	Gln	Leu	Thr	Ser	Ser	Gln	Ser	Ser	Ala	Gly	Pro	Gln
385					390					395					400
Ser	Gln	Ala	Ser	Thr	Ser	Asp	Ser	Gly	Gln	Gln	Val	Thr	Gln	Pro	Ser
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Glu	Ile	Glu	Gln	Gly	Phe	Leu	Pro	Lys	Gly	Trp	Glu	Val	Arg	His	Ala
		420					425						430		
Pro	Asn	Gly	Arg	Pro	Phe	Phe	Ile	Asp	His	Asn	Thr	Lys	Thr	Thr	Thr
	435					440						445			
Trp	Glu	Asp	Pro	Arg	Leu	Lys	Ile	Pro	Ala	His	Leu	Arg	Gly	Lys	Thr
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Ser	Leu	Asp	Thr	Ser	Asn	Asp	Leu	Gly	Pro	Leu	Pro	Pro	Gly	Trp	Glu
465					470				475						480
Glu	Arg	Thr	His	Thr	Asp	Gly	Arg	Ile	Phe	Tyr	Ile	Asn	His	Asn	Ile
			485					490					495		
Lys	Arg	Thr	Gln	Trp	Glu	Asp	Pro	Arg	Leu	Glu	Asn	Val	Ala	Ile	Thr
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Gly	Pro	Ala	Val	Pro	Tyr	Ser	Arg	Asp	Tyr	Lys	Arg	Lys	Tyr	Glu	Phe
	515						520					525			
Phe	Arg	Arg	Lys	Leu	Lys	Lys	Gln	Asn	Asp	Ile	Pro	Asn	Lys	Phe	Glu
	530				535						540				
Met	Lys	Leu	Arg	Arg	Ala	Thr	Val	Leu	Glu	Asp	Ser	Tyr	Arg	Arg	Ile
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Met	Gly	Val	Lys	Arg	Ala	Asp	Phe	Leu	Lys	Ala	Arg	Leu	Trp	Ile	Glu
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Phe	Asp	Gly	Glu	Lys	Gly	Leu	Asp	Tyr	Gly	Gly	Val	Ala	Arg	Glu	Trp
		580					585						590		
Phe	Phe	Leu	Ile	Ser	Lys	Glu	Met	Phe	Asn	Pro	Tyr	Tyr	Gly	Leu	Phe
	595					600						605			
Glu	Tyr	Ser	Ala	Thr	Asp	Asn	Tyr	Thr	Leu	Gln	Ile	Asn	Pro	Asn	Ser
	610				615						620				
Gly	Leu	Cys	Asn	Glu	Asp	His	Leu	Ser	Tyr	Phe	Lys	Phe	Ile	Gly	Arg
625					630				635						640

Val Ala Gly Met Ala Val Tyr His Gly Lys Leu Leu Asp Gly Phe Phe  
 645 650 655  
 Ile Arg Pro Phe Tyr Lys Met Met Leu His Lys Pro Ile Thr Leu His  
 660 665 670  
 Asp Met Glu Ser Val Asp Ser Glu Tyr Tyr Asn Ser Leu Arg Trp Ile  
 675 680 685  
 Leu Glu Asn Asp Pro Thr Glu Leu Asp Leu Arg Phe Ile Ile Asp Glu  
 690 695 700  
 Glu Leu Phe Gly Gln Thr His Gln His Glu Leu Lys Asn Gly Gly Ser  
 705 710 715 720  
 Glu Ile Val Val Thr Asn Lys Asn Lys Lys Glu Tyr Ile Tyr Leu Val  
 725 730 735  
 Ile Gln Trp Arg Phe Val Asn Arg Ile Gln Lys Gln Met Ala Ala Phe  
 740 745 750  
 Lys Glu Gly Phe Phe Glu Leu Ile Pro Gln Asp Leu Ile Lys Ile Phe  
 755 760 765  
 Asp Glu Asn Glu Leu Glu Leu Leu Met Cys Gly Leu Gly Asp Val Asp  
 770 775 780  
 Val Asn Asp Trp Arg Glu His Thr Lys Tyr Lys Asn Gly Tyr Ser Ala  
 785 790 795 800  
 Asn His Gln Val Ile Gln Trp Phe Trp Lys Ala Val Leu Met Met Asp  
 805 810 815  
 Ser Glu Lys Arg Ile Arg Leu Leu Gln Phe Val Thr Gly Thr Ser Arg  
 820 825 830  
 Val Pro Met Asn Gly Phe Ala Glu Leu Tyr Gly Ser Asn Gly Pro Gln  
 835 840 845  
 Ser Phe Thr Val Glu Gln Trp Gly Thr Pro Glu Lys Leu Pro Arg Ala  
 850 855 860  
 His Thr Cys Phe Asn Arg Leu Asp Leu Pro Pro Tyr Glu Ser Phe Glu  
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 Asp Gly Val Asp  
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<210> 4

<211> 777

<212> PRT

<213> Mus musculus

<400> 4

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 Arg His Arg Ile Leu Phe Glu Val Phe Asp Glu Asn Arg Leu Thr Arg  
 35 40 45  
 Asp Asp Phe Leu Gly Gln Val Asp Val Pro Leu Tyr Pro Leu Pro Thr  
 50 55 60  
 Glu Asn Pro Arg Met Glu Arg Pro Tyr Thr Phe Lys Asp Phe Val Leu  
 65 70 75 80  
 His Pro Arg Ser His Lys Ser Arg Val Lys Gly Tyr Leu Arg Leu Lys  
 85 90 95  
 Met Thr Tyr Leu Pro Lys Asn Gly Ser Glu Asp Glu Asn Ala Asp Gln  
 100 105 110  
 Ala Glu Glu Leu Glu Pro Gly Trp Val Val Leu Asp Gln Pro Asp Ala  
 115 120 125

Ala	Thr	His	Leu	Pro	His	Pro	Pro	Glu	Pro	Ser	Pro	Leu	Pro	Pro	Gly
130						135					140				
Trp	Glu	Glu	Arg	Gln	Asp	Val	Leu	Gly	Arg	Thr	Tyr	Tyr	Val	Asn	His
145					150					155					160
Glu	Ser	Arg	Arg	Thr	Gln	Trp	Lys	Arg	Pro	Ser	Pro	Asp	Asp	Asp	Leu
				165					170					175	
Thr	Asp	Glu	Asp	Asn	Asp	Asp	Met	Gln	Leu	Gln	Ala	Gln	Arg	Ala	Phe
			180					185					190		
Thr	Thr	Arg	Arg	Gln	Ile	Ser	Glu	Asp	Val	Asp	Gly	Pro	Asp	Asn	Arg
		195					200					205			
Glu	Ser	Pro	Glu	Asn	Trp	Glu	Ile	Val	Arg	Glu	Asp	Glu	Asn	Thr	Glu
		210				215					220				
Tyr	Ser	Gly	Gln	Ala	Val	Gln	Ser	Pro	Pro	Ser	Gly	His	Ile	Asp	Val
225					230					235					240
Gln	Thr	His	Leu	Ala	Glu	Glu	Phe	Asn	Thr	Arg	Leu	Ala	Val	Cys	Gly
				245					250					255	
Asn	Pro	Ala	Thr	Ser	Gln	Pro	Val	Thr	Ser	Ser	Asn	His	Ser	Ser	Arg
			260					265					270		
Gly	Gly	Ser	Leu	Gln	Thr	Cys	Ile	Phe	Glu	Glu	Gln	Pro	Thr	Leu	Pro
		275					280					285			
Val	Leu	Leu	Pro	Thr	Ser	Ser	Gly	Leu	Pro	Pro	Gly	Trp	Glu	Glu	Lys
		290				295					300				
Gln	Asp	Asp	Arg	Gly	Arg	Ser	Tyr	Tyr	Val	Asp	His	Asn	Ser	Lys	Thr
305					310					315					320
Thr	Thr	Trp	Ser	Lys	Pro	Thr	Met	Gln	Asp	Asp	Pro	Arg	Ser	Lys	Ile
			325						330					335	
Pro	Ala	His	Leu	Arg	Gly	Lys	Thr	Asp	Ser	Asn	Asp	Leu	Gly	Pro	Leu
			340					345					350		
Pro	Pro	Gly	Trp	Glu	Glu	Arg	Thr	His	Thr	Asp	Gly	Arg	Val	Phe	Phe
		355					360					365			
Ile	Asn	His	Asn	Ile	Lys	Lys	Thr	Gln	Trp	Glu	Asp	Pro	Arg	Leu	Gln
		370				375					380				
Asn	Val	Ala	Ile	Thr	Gly	Pro	Ala	Val	Pro	Tyr	Ser	Arg	Asp	Tyr	Lys
385					390					395					400
Arg	Lys	Tyr	Glu	Phe	Phe	Arg	Arg	Lys	Leu	Lys	Lys	Gln	Thr	Asp	Ile
			405						410					415	
Pro	Asn	Lys	Phe	Glu	Met	Lys	Leu	Arg	Arg	Ala	Asn	Ile	Leu	Glu	Asp
			420					425					430		
Ser	Tyr	Arg	Arg	Ile	Met	Gly	Val	Lys	Arg	Ala	Asp	Leu	Leu	Lys	Ala
		435				440						445			
Arg	Leu	Trp	Ile	Glu	Phe	Asp	Gly	Glu	Lys	Gly	Leu	Asp	Tyr	Gly	Gly
450						455					460				
Val	Ala	Arg	Glu	Trp	Phe	Phe	Leu	Ile	Ser	Lys	Glu	Met	Phe	Asn	Pro
465					470					475					480
Tyr	Tyr	Gly	Leu	Phe	Glu	Tyr	Ser	Ala	Thr	Asp	Asn	Tyr	Thr	Leu	Gln
			485						490					495	
Ile	Asn	Pro	Asn	Ser	Gly	Leu	Cys	Asn	Glu	Asp	His	Leu	Ser	Tyr	Phe
			500					505					510		
Lys	Phe	Ile	Gly	Arg	Val	Ala	Gly	Met	Ala	Val	Tyr	His	Gly	Lys	Leu
		515					520					525			
Leu	Asp	Gly	Phe	Phe	Ile	Arg	Pro	Phe	Tyr	Lys	Met	Met	Leu	Gln	Lys
		530				535					540				
Leu	Ile	Thr	Leu	His	Asp	Met	Glu	Ser	Val	Asp	Ser	Glu	Tyr	Tyr	Ser
545					550					555					560
Ser	Leu	Arg	Trp	Ile	Leu	Glu	Asn	Asp	Pro	Thr	Glu	Leu	Asp	Leu	Arg
			565						570					575	
Phe	Ile	Ile	Asp	Glu	Glu	Leu	Phe	Gly	Gln	Thr	His	Gln	His	Glu	Leu



<213> Homo sapiens

Met	Ala	Gly	Asn	Val	Lys	Lys	Ser	Ser	Gly	Ala	Gly	Gly	Gly	Thr	Gly
1				5					10					15	
Ser	Gly	Gly	Ser	Gly	Ser	Gly	Gly	Leu	Ile	Gly	Leu	Met	Lys	Asp	Ala
			20					25					30		
Phe	Gln	Pro	His	His	His	His	His	His	His	Leu	Ser	Pro	His	Pro	Pro
		35					40					45			
Gly	Thr	Val	Asp	Lys	Lys	Met	Val	Glu	Lys	Cys	Trp	Lys	Leu	Met	Asp
	50					55					60				
Lys	Val	Val	Arg	Leu	Cys	Gln	Asn	Pro	Lys	Leu	Ala	Leu	Lys	Asn	Ser
65					70					75				80	
Pro	Pro	Tyr	Ile	Leu	Asp	Leu	Leu	Pro	Asp	Thr	Tyr	Gln	His	Leu	Arg
				85					90					95	
Thr	Ile	Leu	Ser	Arg	Tyr	Glu	Gly	Lys	Met	Glu	Thr	Leu	Gly	Glu	Asn
			100					105					110		
Glu	Tyr	Phe	Arg	Val	Phe	Met	Glu	Asn	Leu	Met	Lys	Lys	Thr	Lys	Gln
		115					120					125			
Thr	Ile	Ser	Leu	Phe	Lys	Glu	Gly	Lys	Glu	Arg	Met	Tyr	Glu	Glu	Asn
	130					135					140				
Ser	Gln	Pro	Arg	Arg	Asn	Leu	Thr	Lys	Leu	Ser	Leu	Ile	Phe	Ser	His
145					150					155					160
Met	Leu	Ala	Glu	Leu	Lys	Gly	Ile	Phe	Pro	Ser	Gly	Leu	Phe	Gln	Gly
				165					170					175	
Asp	Thr	Phe	Arg	Ile	Thr	Lys	Ala	Asp	Ala	Ala	Glu	Phe	Trp	Arg	Lys
			180					185					190		
Ala	Phe	Gly	Glu	Lys	Thr	Ile	Val	Pro	Trp	Lys	Ser	Phe	Arg	Gln	Ala

195	200	205
Leu His Glu Val His Pro Ile Ser Ser Gly Leu Glu Ala Met Ala Leu		
210	215	220
Lys Ser Thr Ile Asp Leu Thr Cys Asn Asp Tyr Ile Ser Val Phe Glu		
225	230	235
Phe Asp Ile Phe Thr Arg Leu Phe Gln Pro Trp Ser Ser Leu Leu Arg		240
	245	250
Asn Trp Asn Ser Leu Ala Val Thr His Pro Gly Tyr Met Ala Phe Leu		255
	260	265
Thr Tyr Asp Glu Val Lys Ala Arg Leu Gln Lys Phe Ile His Lys Pro		270
	275	280
Gly Ser Tyr Ile Phe Arg Leu Ser Cys Thr Arg Leu Gly Gln Trp Ala		285
290	295	300
Ile Gly Tyr Val Thr Ala Asp Gly Asn Ile Leu Gln Thr Ile Pro His		
305	310	315
Asn Lys Pro Leu Phe Gln Ala Leu Ile Asp Gly Phe Arg Glu Gly Phe		320
	325	330
Tyr Leu Phe Pro Asp Gly Arg Asn Gln Asn Pro Asp Leu Thr Gly Leu		335
	340	345
Cys Glu Pro Thr Pro Gln Asp His Ile Lys Val Thr Gln Glu Gln Tyr		350
	355	360
Glu Leu Tyr Cys Glu Met Gly Ser Thr Phe Gln Leu Cys Lys Ile Cys		365
370	375	380
Ala Glu Asn Asp Lys Asp Val Lys Ile Glu Pro Cys Gly His Leu Met		
385	390	395
Cys Thr Ser Cys Leu Thr Ser Trp Gln Glu Ser Glu Gly Gln Gly Cys		400
	405	410
Pro Phe Cys Arg Cys Glu Ile Lys Gly Thr Glu Pro Ile Val Val Asp		415
	420	425
Pro Phe Asp Pro Arg Gly Ser Gly Ser Leu Leu Arg Gln Gly Ala Glu		430
	435	440
Gly Ala Pro Ser Pro Asn Tyr Asp Asp Asp Asp Asp Glu Arg Ala Asp		445
450	455	460
Asp Thr Leu Phe Met Met Lys Glu Leu Ala Gly Ala Lys Val Glu Arg		
465	470	475
Pro Pro Ser Pro Phe Ser Met Ala Pro Gln Ala Ser Leu Pro Pro Val		480
	485	490
Pro Pro Arg Leu Asp Leu Leu Pro Gln Arg Val Cys Val Pro Ser Ser		495
	500	505
Ala Ser Ala Leu Gly Thr Ala Ser Lys Ala Ala Ser Gly Ser Leu His		510
	515	520
Lys Asp Lys Pro Leu Pro Val Pro Pro Thr Leu Arg Asp Leu Pro Pro		525
530	535	540
Pro Pro Pro Pro Asp Arg Pro Tyr Ser Val Gly Ala Glu Ser Arg Pro		
545	550	555
Gln Arg Arg Pro Leu Pro Cys Thr Pro Gly Asp Cys Pro Ser Arg Asp		560
	565	570
Lys Leu Pro Pro Val Pro Ser Ser Arg Leu Gly Asp Ser Trp Leu Pro		575
	580	585
Arg Pro Ile Pro Lys Val Pro Val Ser Ala Pro Ser Ser Ser Asp Pro		590
	595	600
Trp Thr Gly Arg Glu Leu Thr Asn Arg His Ser Leu Pro Phe Ser Leu		605
610	615	620
Pro Ser Gln Met Glu Pro Arg Pro Asp Val Pro Arg Leu Gly Ser Thr		
625	630	635
Phe Ser Leu Asp Thr Ser Met Ser Met Asn Ser Ser Pro Leu Val Gly		640
	645	650
		655

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Pro Glu Cys Asp His Pro Lys Ile Lys Pro Ser Ser Ser Ala Asn Ala
    660          665          670
Ile Tyr Ser Leu Ala Ala Arg Pro Leu Pro Val Pro Lys Leu Pro Pro
    675          680          685
Gly Glu Gln Cys Glu Gly Glu Glu Asp Thr Glu Tyr Met Thr Pro Ser
    690          695          700
Ser Arg Pro Leu Arg Pro Leu Asp Thr Ser Gln Ser Ser Arg Ala Cys
    705          710          715          720
Asp Cys Asp Gln Gln Ile Asp Ser Cys Thr Tyr Glu Ala Met Tyr Asn
    725          730          735
Ile Gln Ser Gln Ala Pro Ser Ile Thr Glu Ser Ser Thr Phe Gly Glu
    740          745          750
Gly Asn Leu Ala Ala Ala His Ala Asn Thr Gly Pro Glu Glu Ser Glu
    755          760          765
Asn Glu Asp Asp Gly Tyr Asp Val Pro Lys Pro Pro Val Pro Ala Val
    770          775          780
Leu Ala Arg Arg Thr Leu Ser Asp Ile Ser Asn Ala Ser Ser Ser Phe
    785          790          795          800
Gly Trp Leu Ser Leu Asp Gly Asp Pro Thr Thr Asn Val Thr Glu Gly
    805          810          815
Ser Gln Val Pro Glu Arg Pro Pro Lys Pro Phe Pro Arg Arg Ile Asn
    820          825          830
Ser Glu Arg Lys Ala Gly Ser Cys Gln Gln Gly Ser Gly Pro Ala Ala
    835          840          845
Ser Ala Ala Thr Ala Ser Pro Gln Leu Ser Ser Glu Ile Glu Asn Leu
    850          855          860
Met Ser Gln Gly Tyr Ser Tyr Gln Asp Ile Gln Lys Ala Leu Val Ile
    865          870          875          880
Ala Gln Asn Asn Ile Glu Met Ala Lys Asn Ile Leu Arg Glu Phe Val
    885          890          895
Ser Ile Ser Ser Pro Ala His Val Ala Thr
    900          905

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<210> 6
<211> 896
<212> PRT
<213> Mus musculus

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<400> 6
Met Ala Gly Asn Val Lys Lys Ser Ser Gly Ala Gly Gly Gly Gly Ser
  1          5          10          15
Gly Gly Ser Gly Ala Gly Gly Leu Ile Gly Leu Met Lys Asp Ala Phe
    20          25          30
Gln Pro His His His His His Leu Ser Pro His Pro Pro Cys Thr
    35          40          45
Val Asp Lys Lys Met Val Glu Lys Cys Trp Lys Leu Met Asp Lys Val
    50          55          60
Val Arg Leu Cys Gln Asn Pro Asn Val Ala Leu Lys Asn Ser Pro Pro
    65          70          75          80
Tyr Ile Leu Asp Leu Leu Pro Asp Thr Tyr Gln His Leu Arg Thr Val
    85          90          95
Leu Ser Arg Tyr Glu Gly Lys Met Glu Thr Leu Gly Glu Asn Glu Tyr
    100          105          110
Phe Arg Val Phe Met Glu Asn Leu Met Lys Lys Thr Lys Gln Thr Ile
    115          120          125
Ser Leu Phe Lys Glu Gly Lys Glu Arg Met Tyr Glu Glu Asn Ser Gln
    130          135          140

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Pro	Arg	Arg	Asn	Leu	Thr	Lys	Leu	Ser	Leu	Ile	Phe	Ser	His	Met	Leu
145					150					155					160
Ala	Glu	Leu	Lys	Gly	Ile	Phe	Pro	Ser	Gly	Leu	Phe	Gln	Gly	Asp	Thr
				165					170					175	
Phe	Arg	Ile	Thr	Lys	Ala	Asp	Ala	Ala	Glu	Phe	Trp	Arg	Lys	Ala	Phe
			180					185					190		
Gly	Glu	Lys	Thr	Ile	Val	Pro	Trp	Lys	Ser	Phe	Arg	Gln	Ala	Leu	His
		195					200					205			
Glu	Val	His	Pro	Ile	Ser	Ser	Gly	Leu	Glu	Ala	Met	Ala	Leu	Lys	Ser
	210					215					220				
Thr	Ile	Asp	Leu	Thr	Cys	Asn	Asp	Tyr	Ile	Ser	Val	Phe	Glu	Phe	Asp
225					230					235					240
Ile	Phe	Thr	Arg	Leu	Phe	Gln	Pro	Trp	Ser	Ser	Leu	Leu	Arg	Asn	Trp
				245					250					255	
Asn	Ser	Leu	Ala	Val	Thr	His	Pro	Gly	Tyr	Met	Ala	Phe	Leu	Thr	Tyr
			260					265					270		
Asp	Glu	Val	Lys	Ala	Arg	Leu	Gln	Lys	Phe	Ile	His	Lys	Pro	Gly	Ser
		275					280					285			
Tyr	Ile	Phe	Arg	Leu	Ser	Cys	Thr	Arg	Leu	Gly	Gln	Trp	Ala	Ile	Gly
	290					295					300				
Tyr	Val	Thr	Ala	Asp	Gly	Asn	Ile	Leu	Gln	Thr	Ile	Pro	His	Asn	Lys
305					310					315					320
Pro	Leu	Phe	Gln	Ala	Leu	Ile	Asp	Gly	Phe	Arg	Glu	Gly	Phe	Tyr	Leu
				325					330					335	
Phe	Pro	Asp	Gly	Arg	Asn	Gln	Asn	Pro	Asp	Leu	Thr	Gly	Leu	Cys	Glu
			340					345					350		
Pro	Thr	Pro	Gln	Asp	His	Ile	Lys	Val	Thr	Gln	Ile	Cys	Ala	Glu	Asn
		355					360					365			
Asp	Lys	Asp	Val	Lys	Ile	Glu	Pro	Cys	Gly	His	Leu	Met	Cys	Thr	Ser
	370					375					380				
Cys	Leu	Thr	Ser	Trp	Gln	Glu	Ser	Glu	Gly	Gln	Gly	Cys	Pro	Phe	Cys
385					390					395					400
Arg	Cys	Glu	Ile	Lys	Gly	Thr	Glu	Pro	Ile	Val	Val	Asp	Pro	Phe	Asp
				405					410					415	
Pro	Arg	Gly	Ser	Gly	Ser	Leu	Leu	Arg	Gln	Gly	Ala	Glu	Gly	Ala	Pro
			420					425					430		
Ser	Pro	Asn	Tyr	Asp	Asp	Asp	Asp	Asp	Glu	Arg	Ala	Asp	Asp	Ser	Leu
		435				440						445			
Phe	Met	Met	Lys	Glu	Leu	Ala	Gly	Ala	Lys	Val	Glu	Arg	Pro	Ser	Ser
	450					455					460				
Pro	Phe	Ser	Met	Ala	Pro	Gln	Ala	Ser	Leu	Pro	Val	Pro	Pro	Pro	Arg
465					470					475					480
Leu	Asp	Leu	Leu	Gln	Arg	Ala	Pro	Val	Pro	Ala	Ser	Thr	Ser	Val	
				485				490					495		
Leu	Gly	Thr	Ala	Ser	Lys	Ala	Ala	Ser	Gly	Ser	Leu	His	Lys	Asp	Lys
			500					505					510		
Pro	Leu	Pro	Ile	Pro	Pro	Thr	Leu	Arg	Asp	Leu	Pro	Pro	Pro	Pro	Pro
		515					520					525			
Pro	Asp	Arg	Pro	Tyr	Ser	Val	Gly	Ala	Glu	Thr	Arg	Pro	Gln	Arg	Arg
	530					535					540				
Pro	Leu	Pro	Cys	Thr	Pro	Gly	Asp	Cys	Pro	Ser	Arg	Asp	Lys	Leu	Pro
545					550					555					560
Pro	Val	Pro	Ser	Ser	Arg	Pro	Gly	Asp	Ser	Trp	Leu	Ser	Arg	Thr	Ile
			565					570						575	
Pro	Lys	Val	Pro	Val	Ala	Thr	Pro	Asn	Pro	Gly	Asp	Pro	Trp	Asn	Gly
			580					585					590		
Arg	Glu	Leu	Thr	Asn	Arg	His	Ser	Leu	Pro	Phe	Ser	Leu	Pro	Ser	Gln

595	600	605
Met Glu Pro Arg Ala Asp Val Pro Arg Leu Gly Ser Thr Phe Ser Leu		
610	615	620
Asp Thr Ser Met Thr Met Asn Ser Ser Pro Val Ala Gly Pro Glu Ser		
625	630	635
Glu His Pro Lys Ile Lys Pro Ser Ser Ser Ala Asn Ala Ile Tyr Ser		640
	645	650
Leu Ala Ala Arg Pro Leu Pro Met Pro Lys Leu Pro Pro Gly Glu Gln		655
	660	665
Gly Glu Ser Glu Glu Asp Thr Glu Tyr Met Thr Pro Thr Ser Arg Pro		670
	675	680
Val Gly Val Gln Lys Pro Glu Pro Lys Arg Pro Leu Glu Ala Thr Gln		685
	690	695
Ser Ser Arg Ala Cys Asp Cys Asp Gln Gln Ile Asp Ser Cys Thr Tyr		700
705	710	715
Glu Ala Met Tyr Thr Ile Gln Ser Gln Ala Leu Ser Val Ala Glu Asn		720
	725	730
Ser Ala Ser Gly Glu Gly Asn Leu Ala Thr Ala His Thr Ser Thr Gly		735
	740	745
Pro Glu Glu Ser Glu Asn Glu Asp Asp Gly Tyr Asp Val Pro Lys Pro		750
	755	760
Pro Val Pro Ala Val Leu Ala Arg Arg Thr Leu Ser Asp Ile Ser Asn		765
	770	775
Ala Ser Ser Ser Phe Gly Trp Leu Ser Leu Asp Gly Asp Pro Thr Asn		780
785	790	795
Phe Asn Glu Gly Ser Gln Val Pro Glu Arg Pro Pro Lys Pro Phe Pro		800
	805	810
Arg Arg Ile Asn Ser Glu Arg Lys Ala Ser Ser Tyr Gln Gln Gly Gly		815
	820	825
Gly Ala Thr Ala Asn Pro Val Ala Thr Ala Pro Ser Pro Gln Leu Ser		830
	835	840
Ser Glu Ile Glu Arg Leu Met Ser Gln Gly Tyr Ser Tyr Gln Asp Ile		845
	850	855
Gln Lys Ala Leu Val Ile Ala His Asn Asn Ile Glu Met Ala Lys Asn		860
865	870	875
Ile Leu Arg Glu Phe Val Ser Ile Ser Ser Pro Ala His Val Ala Thr		880
	885	890
		895

&lt;210&gt; 7

&lt;211&gt; 982

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 7

Met Ala Asn Ser Met Asn Gly Arg Asn Pro Gly Gly Arg Gly Gly Asn	
1	5
Pro Arg Lys Gly Arg Ile Leu Gly Ile Ile Asp Ala Ile Gln Asp Ala	
	20
Val Gly Pro Pro Lys Gln Ala Ala Ala Asp Arg Arg Thr Val Glu Lys	
	35
Thr Trp Lys Leu Met Asp Lys Val Val Arg Leu Cys Gln Asn Pro Lys	
	50
Leu Gln Leu Lys Asn Ser Pro Pro Tyr Ile Leu Asp Ile Leu Pro Asp	
65	70
Thr Tyr Gln His Leu Arg Leu Ile Leu Ser Lys Tyr Asp Asp Asn Gln	
	85
Lys Leu Ala Gln Leu Ser Glu Asn Glu Tyr Phe Lys Ile Tyr Ile Asp	
	90
	95

			100					105					110			
Ser	Leu	Met	Lys	Lys	Ser	Lys	Arg	Ala	Ile	Arg	Leu	Phe	Lys	Glu	Gly	
		115					120					125				
Lys	Glu	Arg	Met	Tyr	Glu	Glu	Gln	Ser	Gln	Asp	Arg	Arg	Asn	Leu	Thr	
		130					135				140					
Lys	Leu	Ser	Leu	Ile	Phe	Ser	His	Met	Leu	Ala	Glu	Ile	Lys	Ala	Ile	
145					150					155					160	
Phe	Pro	Asn	Gly	Gln	Phe	Gln	Gly	Asp	Asn	Phe	Arg	Ile	Thr	Lys	Ala	
				165				170						175		
Asp	Ala	Ala	Glu	Phe	Trp	Arg	Lys	Phe	Phe	Gly	Asp	Lys	Thr	Ile	Val	
			180					185					190			
Pro	Trp	Lys	Val	Phe	Arg	Gln	Cys	Leu	His	Glu	Val	His	Gln	Ile	Ser	
		195					200					205				
Ser	Ser	Leu	Glu	Ala	Met	Ala	Leu	Lys	Ser	Thr	Ile	Asp	Leu	Thr	Cys	
		210				215					220					
Asn	Asp	Tyr	Ile	Ser	Val	Phe	Glu	Phe	Asp	Ile	Phe	Thr	Arg	Leu	Phe	
225					230					235					240	
Gln	Pro	Trp	Gly	Ser	Ile	Leu	Arg	Asn	Trp	Asn	Phe	Leu	Ala	Val	Thr	
				245				250						255		
His	Pro	Gly	Tyr	Met	Ala	Phe	Leu	Thr	Tyr	Asp	Glu	Val	Lys	Ala	Arg	
			260					265					270			
Leu	Gln	Lys	Tyr	Ser	Thr	Lys	Pro	Gly	Ser	Tyr	Ile	Phe	Arg	Leu	Ser	
		275					280					285				
Cys	Thr	Arg	Leu	Gly	Gln	Trp	Ala	Ile	Gly	Tyr	Val	Thr	Gly	Asp	Gly	
	290					295					300					
Asn	Ile	Leu	Gln	Thr	Ile	Pro	His	Asn	Lys	Pro	Leu	Phe	Gln	Ala	Leu	
305					310					315					320	
Ile	Asp	Gly	Ser	Arg	Glu	Gly	Phe	Tyr	Leu	Tyr	Pro	Asp	Gly	Arg	Ser	
				325				330						335		
Tyr	Asn	Pro	Asp	Leu	Thr	Gly	Leu	Cys	Glu	Pro	Thr	Pro	His	Asp	His	
			340					345					350			
Ile	Lys	Val	Thr	Gln	Glu	Gln	Tyr	Glu	Leu	Tyr	Cys	Glu	Met	Gly	Ser	
		355					360					365				
Thr	Phe	Gln	Leu	Cys	Lys	Ile	Cys	Ala	Glu	Asn	Asp	Lys	Asp	Val	Lys	
		370				375					380					
Ile	Glu	Pro	Cys	Gly	His	Leu	Met	Cys	Thr	Ser	Cys	Leu	Thr	Ala	Trp	
385					390					395					400	
Gln	Glu	Ser	Asp	Gly	Gln	Gly	Cys	Pro	Phe	Cys	Arg	Cys	Glu	Ile	Lys	
			405					410					415			
Gly	Thr	Glu	Pro	Ile	Ile	Val	Asp	Pro	Phe	Asp	Pro	Arg	Asp	Glu	Gly	
			420					425					430			
Ser	Arg	Cys	Cys	Ser	Ile	Ile	Asp	Pro	Phe	Gly	Met	Pro	Met	Leu	Asp	
		435					440					445				
Leu	Asp	Asp	Asp	Asp	Asp	Arg	Glu	Glu	Ser	Leu	Met	Met	Asn	Arg	Leu	
		450				455				</						

Arg	Pro	Pro	Pro	Ile	Pro	Pro	Asp	Asn	Arg	Leu	Ser	Arg	His	Ile	His
				565					570					575	
His	Val	Glu	Ser	Val	Pro	Ser	Arg	Asp	Pro	Pro	Met	Pro	Leu	Glu	Ala
			580					585					590		
Trp	Cys	Pro	Arg	Asp	Val	Phe	Gly	Thr	Asn	Gln	Leu	Val	Gly	Cys	Arg
		595					600					605			
Leu	Leu	Gly	Glu	Gly	Ser	Pro	Lys	Pro	Gly	Ile	Thr	Ala	Ser	Ser	Asn
	610					615					620				
Val	Asn	Gly	Arg	His	Ser	Arg	Val	Gly	Ser	Asp	Pro	Val	Leu	Met	Arg
625					630					635					640
Lys	His	Arg	Arg	His	Asp	Leu	Pro	Leu	Glu	Gly	Ala	Lys	Val	Phe	Ser
				645					650					655	
Asn	Gly	His	Leu	Gly	Ser	Glu	Glu	Tyr	Asp	Val	Pro	Pro	Arg	Leu	Ser
			660					665					670		
Pro	Pro	Pro	Pro	Val	Thr	Thr	Leu	Leu	Pro	Ser	Ile	Lys	Cys	Thr	Gly
		675					680					685			
Pro	Leu	Ala	Asn	Ser	Leu	Ser	Glu	Lys	Thr	Arg	Asp	Pro	Val	Glu	Glu
	690					695					700				
Asp	Asp	Asp	Glu	Tyr	Lys	Ile	Pro	Ser	Ser	His	Pro	Val	Ser	Leu	Asn
705					710					715					720
Ser	Gln	Pro	Ser	His	Cys	His	Asn	Val	Lys	Pro	Pro	Val	Arg	Ser	Cys
				725					730					735	
Asp	Asn	Gly	His	Cys	Met	Leu	Asn	Gly	Thr	His	Gly	Pro	Ser	Ser	Glu
			740					745					750		
Lys	Lys	Ser	Asn	Ile	Pro	Asp	Leu	Ser	Ile	Tyr	Leu	Lys	Gly	Asp	Val
		755					760					765			
Phe	Asp	Ser	Ala	Ser	Asp	Pro	Val	Pro	Leu	Pro	Pro	Ala	Arg	Pro	Pro
	770					775					780				
Thr	Arg	Asp	Asn	Pro	Lys	His	Gly	Ser	Ser	Leu	Asn	Arg	Thr	Pro	Ser
785					790					795					800
Asp	Tyr	Asp	Leu	Leu	Ile	Pro	Pro	Leu	Gly	Glu	Asp	Ala	Phe	Asp	Ala
				805					810					815	
Leu	Pro	Pro	Ser	Leu	Pro	Pro	Pro	Pro	Pro	Pro	Ala	Arg	His	Ser	Leu
			820					825					830		
Ile	Glu	His	Ser	Lys	Pro	Pro	Gly	Ser	Ser	Ser	Arg	Pro	Ser	Ser	Gly
		835					840					845			
Gln	Asp	Leu	Phe	Leu	Leu	Pro	Ser	Asp	Pro	Phe	Val	Asp	Leu	Ala	Ser
	850					855					860				
Gly	Gln	Val	Pro	Leu	Pro	Pro	Ala	Arg	Arg	Leu	Pro	Gly	Glu	Asn	Val
865					870					875					880
Lys	Thr	Asn	Arg	Thr	Ser	Gln	Asp	Tyr	Asp	Gln	Leu	Pro	Ser	Cys	Ser
				885					890					895	
Asp	Gly	Ser	Gln	Ala	Pro	Ala	Arg	Pro	Pro	Lys	Pro	Arg	Pro	Arg	Arg
			900					905					910		
Thr	Ala	Pro	Glu	Ile	His	His	Arg	Lys	Pro	His	Gly	Pro	Glu	Ala	Ala
		915					920					925			
Leu	Glu	Asn	Val	Asp	Ala	Lys	Ile	Ala	Lys	Leu	Met	Gly	Glu	Gly	Tyr
	930					935					940				
Ala	Phe	Glu	Glu	Val	Lys	Arg	Ala	Leu	Glu	Ile	Ala	Gln	Asn	Asn	Val
945					950					955					960
Glu	Val	Ala	Arg	Ser	Ile	Leu	Arg	Glu	Phe	Ala	Phe	Pro	Pro	Pro	Val
				965					970					975	
Ser	Pro	Arg	Leu	Asn	Leu										
				980											

&lt;210&gt; 8

&lt;211&gt; 547

&lt;212&gt; PRT

&lt;213&gt; Mus musculus

&lt;400&gt; 8

```

Met Cys Thr Ser Cys Leu Thr Ala Trp Gln Glu Ser Asp Gly Gln Gly
 1           5           10           15
Cys Pro Phe Cys Arg Cys Glu Ile Lys Gly Thr Glu Pro Ile Ile Val
 20           25           30
Asp Pro Phe Asp Pro Arg Asp Glu Gly Ser Arg Cys Cys Ser Ile Ile
 35           40           45
Asp Pro Phe Ser Ile Pro Met Leu Asp Leu Asp Asp Asp Asp Arg
 50           55           60
Glu Glu Ser Leu Met Met Asn Arg Leu Ala Ser Val Arg Lys Cys Thr
 65           70           75           80
Asp Arg Gln Asn Ser Pro Val Thr Ser Pro Gly Ser Ser Pro Leu Ala
 85           90           95
Gln Arg Arg Lys Pro Gln Pro Asp Pro Leu Gln Ile Pro His Leu Ser
100           105           110
Leu Pro Pro Val Pro Pro Arg Leu Asp Leu Ile Gln Lys Gly Ile Val
115           120           125
Arg Ser Pro Cys Gly Ser Pro Thr Gly Ser Pro Lys Ser Ser Pro Cys
130           135           140
Met Val Arg Lys Gln Asp Lys Pro Leu Pro Ala Pro Pro Pro Pro Leu
145           150           155           160
Arg Asp Pro Pro Pro Pro Pro Glu Arg Pro Pro Pro Ile Pro Pro Asp
165           170           175
Asn Arg Leu Ser Arg His Phe His His Gly Glu Ser Val Pro Ser Arg
180           185           190
Asp Gln Pro Met Pro Leu Glu Ala Trp Cys Pro Arg Asp Ala Phe Gly
195           200           205
Thr Asn Gln Val Met Gly Cys Arg Ile Leu Gly Asp Gly Ser Pro Lys
210           215           220
Pro Gly Val Thr Ala Asn Ser Ser Leu Asn Gly Arg His Ser Arg Met
225           230           235           240
Gly Ser Glu Gln Val Leu Met Arg Lys His Arg Arg His Asp Leu Pro
245           250           255
Ser Glu Gly Ala Lys Val Phe Ser Asn Gly His Leu Ala Thr Glu Glu
260           265           270
Tyr Asp Val Pro Pro Arg Leu Ser Pro Pro Pro Pro Val Thr Thr Leu
275           280           285
Leu Pro Ser Ile Lys Cys Thr Gly Pro Leu Ala Asn Cys Leu Ser Glu
290           295           300
Lys Thr Arg Asp Thr Val Glu Asp Asp Asp Asp Glu Tyr Lys Ile Pro
305           310           315           320
Ser Ser His Pro Val Ser Leu Asn Ser Gln Pro Ser His Cys His Asn
325           330           335
Val Lys Ala Pro Val Arg Ser Cys Asp Asn Gly His Cys Ile Leu Asn
340           345           350
Gly Thr His Gly Ala Pro Ser Glu Met Lys Lys Ser Asn Ile Pro Asp
355           360           365
Leu Gly Ile Tyr Leu Lys Gly Glu Asp Ala Phe Asp Ala Leu Pro Pro
370           375           380
Ser Leu Pro Pro Pro Pro Pro Pro Ala Arg His Ser Leu Ile Glu His
385           390           395           400
Ser Lys Pro Pro Gly Ser Ser Ser Arg Pro Ser Ser Gly Gln Asp Leu
405           410           415
Phe Leu Leu Pro Ser Asp Pro Phe Phe Asp Pro Thr Ser Gly Gln Val

```



```

          420          425          430
Pro Leu Pro Pro Ala Arg Arg Ala Ala Gly Asp Ser Gly Lys Ala Asn
          435          440          445
Arg Ala Ser Gln Asp Tyr Asp Gln Leu Pro Ser Ser Ser Asp Gly Ser
          450          455          460
Gln Ala Pro Ala Arg Pro Pro Lys Pro Arg Pro Arg Arg Thr Ala Pro
465          470          475          480
Glu Ile His His Arg Lys Pro His Gly Pro Glu Ala Ala Leu Glu Asn
          485          490          495
Val Asp Ala Lys Ile Ala Lys Leu Met Gly Glu Gly Tyr Ala Phe Glu
          500          505          510
Glu Val Lys Arg Ala Leu Glu Ile Ala Gln Asn Asn Val Glu Val Ala
          515          520          525
Arg Ser Ile Leu Arg Glu Phe Ala Phe Pro Pro Pro Val Ser Pro Arg
          530          535          540
Leu Asn Leu
545

```

```

<210> 9
<211> 474
<212> PRT
<213> Homo sapiens

```

```

<400> 9
Met Ala Leu Ala Val Ala Pro Trp Gly Arg Gln Trp Glu Glu Ala Arg
 1          5          10          15
Ala Leu Gly Arg Ala Val Arg Met Leu Gln Arg Leu Glu Glu Gln Cys
          20          25          30
Val Asp Pro Arg Leu Ser Val Ser Pro Pro Ser Leu Arg Asp Leu Leu
          35          40          45
Pro Arg Thr Ala Gln Leu Leu Arg Glu Val Ala His Ser Arg Arg Ala
          50          55          60
Ala Gly Gly Gly Gly Pro Gly Gly Pro Gly Gly Ser Gly Asp Phe Leu
65          70          75          80
Leu Ile Tyr Leu Ala Asn Leu Glu Ala Lys Ser Arg Gln Val Ala Ala
          85          90          95
Leu Leu Pro Pro Arg Gly Arg Arg Ser Ala Asn Asp Glu Leu Phe Arg
          100          105          110
Ala Gly Ser Arg Leu Arg Arg Gln Leu Ala Lys Leu Ala Ile Ile Phe
          115          120          125
Ser His Met His Ala Glu Leu His Ala Leu Phe Pro Gly Gly Lys Tyr
          130          135          140
Cys Gly His Met Tyr Gln Leu Thr Lys Ala Pro Ala His Thr Phe Trp
145          150          155          160
Arg Glu Ser Cys Gly Ala Arg Cys Val Leu Pro Trp Ala Glu Phe Glu
          165          170          175
Ser Leu Leu Gly Thr Cys His Pro Val Glu Pro Gly Cys Thr Ala Leu
          180          185          190
Ala Leu Arg Thr Thr Ile Asp Leu Thr Cys Ser Gly His Val Ser Ile
          195          200          205
Phe Glu Phe Asp Val Phe Thr Arg Leu Phe Gln Pro Trp Pro Thr Leu
210          215          220
Leu Lys Asn Trp Gln Leu Leu Ala Val Thr His Pro Gly Tyr Met Ala
225          230          235          240
Phe Leu Thr Tyr Asp Glu Val Gln Glu Arg Leu Gln Ala Cys Arg Asp
          245          250          255
Lys Pro Gly Ser Tyr Ile Phe Arg Pro Ser Cys Thr Arg Leu Gly Gln

```

[illegible]

```
<210> 10
<211> 496
<212> PRT
<213> Mus musculus
```

<400>	10															
Met	Ala	Ala	Ala	Ala	Ala	Pro	Arg	Gly	Trp	Gln	Arg	Gly	Glu	Pro	Arg	
1				5					10					15		
Ala	Leu	Ser	Arg	Ala	Val	Lys	Leu	Leu	Gln	Arg	Leu	Glu	Glu	Gln	Cys	
			20					25					30			
Arg	Asp	Pro	Arg	Met	Val	Thr	Gly	Pro	Pro	Ser	Leu	Arg	Asp	Leu	Leu	
		35					40					45				
Pro	Arg	Thr	Ala	Gln	Leu	Leu	Gly	Glu	Val	Ala	Lys	Ala	Arg	Arg	Glu	
	50					55				60						
Ala	Arg	Glu	Asp	Pro	Glu	Gly	Pro	Gly	Gly	Ala	Asp	Asp	Phe	Leu	Ala	
65					70				75						80	
Ile	Tyr	Leu	Ala	Asn	Leu	Glu	Val	Lys	Gly	Arg	Gln	Val	Ala	Glu	Leu	
				85					90					95		
Leu	Pro	Pro	Arg	Gly	Lys	Lys	Asp	Val	Asn	Gln	Asp	Val	Phe	Arg	Glu	
			100					105					110			
Gly	Ser	Arg	Phe	Arg	Arg	Gln	Leu	Ala	Lys	Leu	Ala	Leu	Ile	Phe	Ser	
		115					120					125				
His	Met	His	Ala	Glu	Leu	Ser	Ala	Leu	Phe	Pro	Ala	Gly	Lys	Tyr	Cys	
	130					135				140						
Gly	His	Leu	Tyr	Gln	Leu	Thr	Lys	Gly	Ser	Ala	His	Ile	Phe	Trp	Arg	
145					150				155						160	
Gln	Asn	Cys	Gly	Val	Arg	Cys	Val	Leu	Pro	Trp	Ala	Glu	Phe	Gln	Ser	
				165					170					175		
Leu	Leu	Cys	Ala	Cys	His	Pro	Val	Glu	Pro	Gly	Pro	Thr	Met	Gln	Ala	

```

      180      185      190
Leu Arg Ser Thr Leu Asp Leu Thr Cys Asn Gly His Val Ser Val Phe
      195      200      205
Glu Phe Asp Val Phe Thr Arg Leu Phe Gln Pro Trp Pro Thr Leu Leu
      210      215      220
Arg Asn Trp Gln Leu Leu Ala Val Asn His Pro Gly Tyr Met Ala Phe
225      230      235      240
Leu Thr Tyr Asp Glu Val Gln Thr Arg Leu Gln Ala Tyr Arg Asp Lys
      245      250      255
Pro Gly Ser Tyr Ile Phe Arg Pro Ser Cys Thr Arg Leu Gly Gln Trp
      260      265      270
Ala Ile Gly Tyr Val Ser Ser Asp Gly Ser Ile Leu Gln Thr Ile Pro
      275      280      285
Leu Asn Lys Pro Leu Leu Gln Val Leu Leu Lys Gly Gln Lys Asp Gly
      290      295      300
Ile Phe Leu Phe Pro Asp Gly Lys Lys His Asn Pro Asp Leu Thr Glu
305      310      315      320
Leu Cys Arg Val Glu Pro Tyr Gln Arg Ile Gln Val Ser Glu Glu Gln
      325      330      335
Leu Leu Leu Tyr Gln Ala Met Asn Ser Thr Phe Gln Leu Cys Lys Ile
      340      345      350
Cys Ala Glu Arg Asp Lys Asp Val Arg Ile Glu Pro Cys Gly His Leu
      355      360      365
Leu Cys Ser Cys Cys Leu Ser Ala Trp Gln Asp Ser Asp Ser Gln Thr
370      375      380
Cys Pro Phe Cys Arg Cys Glu Ile Lys Gly Arg Glu Ala Val Ser Ile
385      390      395      400
Cys Gln Ala Gln Glu Arg Pro Thr Glu Val Arg Thr Ala Ala Asp Gly
      405      410      415
Ser Arg Asp Asn Cys His Gln Glu Ala Ala Glu Gln Lys Leu Gly Pro
      420      425      430
Val Ile Pro Ser Ala Pro Ser Leu Leu Pro Glu Asp Gln Phe Pro Gln
      435      440      445
Gly Pro Gln Asp Lys Gly Trp Leu Thr Leu Ala Pro Leu Ala Leu Pro
450      455      460
Arg Leu Arg Pro Pro Leu Pro Leu Pro Lys Met Ala Ser Val Leu Trp
465      470      475      480
Glu Val Thr Ser Arg Pro Arg Ala Arg Glu Glu Ala Thr Glu Ser Ser
      485      490      495

```

&lt;210&gt; 11

&lt;211&gt; 428

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 11

```

Met Gly Pro Pro Pro Gly Ala Gly Val Ser Cys Arg Gly Gly Cys Gly
  1      5      10      15
Phe Ser Arg Leu Leu Ala Trp Cys Phe Leu Leu Ala Leu Ser Pro Gln
      20      25      30
Ala Pro Gly Ser Arg Gly Ala Glu Ala Val Trp Thr Ala Tyr Leu Asn
      35      40      45
Val Ser Trp Arg Val Pro His Thr Gly Val Asn Arg Thr Val Trp Glu
      50      55      60
Leu Ser Glu Glu Gly Val Tyr Gly Gln Asp Ser Pro Leu Glu Pro Val
65      70      75      80
Ala Gly Val Leu Val Pro Pro Asp Gly Pro Gly Ala Leu Asn Ala Cys

```

				85					90					95			
Asn	Pro	His	Thr	Asn	Phe	Thr	Val	Pro	Thr	Val	Trp	Gly	Ser	Thr	Val		
			100					105					110				
Gln	Val	Ser	Trp	Leu	Ala	Leu	Ile	Gln	Arg	Gly	Gly	Gly	Cys	Thr	Phe		
		115					120					125					
Ala	Asp	Lys	Ile	His	Leu	Ala	Tyr	Glu	Arg	Gly	Ala	Ser	Gly	Ala	Val		
	130					135					140						
Ile	Phe	Asn	Phe	Pro	Gly	Thr	Arg	Asn	Glu	Val	Ile	Pro	Met	Ser	His		
145					150					155					160		
Pro	Gly	Ala	Val	Asp	Ile	Val	Ala	Ile	Met	Ile	Gly	Asn	Leu	Lys	Gly		
				165					170					175			
Thr	Lys	Ile	Leu	Gln	Ser	Ile	Gln	Arg	Gly	Ile	Gln	Val	Thr	Met	Val		
			180					185					190				
Ile	Glu	Val	Gly	Lys	Lys	His	Gly	Pro	Trp	Val	Asn	His	Tyr	Ser	Ile		
		195					200					205					
Phe	Phe	Val	Ser	Val	Ser	Phe	Phe	Ile	Ile	Thr	Ala	Ala	Thr	Val	Gly		
	210					215					220						
Tyr	Phe	Ile	Phe	Tyr	Ser	Ala	Arg	Arg	Leu	Arg	Asn	Ala	Arg	Ala	Gln		
225					230					235					240		
Ser	Arg	Lys	Gln	Arg	Gln	Leu	Lys	Ala	Asp	Ala	Lys	Lys	Ala	Ile	Gly		
				245					250					255			
Arg	Leu	Gln	Leu	Arg	Thr	Leu	Lys	Gln	Gly	Asp	Lys	Glu	Ile	Gly	Pro		
			260					265					270				
Asp	Gly	Asp	Ser	Cys	Ala	Val	Cys	Ile	Glu	Leu	Tyr	Lys	Pro	Asn	Asp		
	275						280					285					
Leu	Val	Arg	Ile	Leu	Thr	Cys	Asn	His	Ile	Phe	His	Lys	Thr	Cys	Val		
	290					295					300						
Asp	Pro	Trp	Leu	Leu	Glu	His	Arg	Thr	Cys	Pro	Met	Cys	Lys	Cys	Asp		
305					310					315					320		
Ile	Leu	Lys	Ala	Leu	Gly	Ile	Glu	Val	Asp	Val	Glu	Asp	Gly	Ser	Val		
				325					330					335			
Ser	Leu	Gln	Val	Pro	Val	Ser	Asn	Glu	Ile	Ser	Asn	Ser	Ala	Ser	Ser		
			340					345					350				
His	Glu	Glu	Asp	Asn	Arg	Ser	Glu	Thr	Ala	Ser	Ser	Gly	Tyr	Ala	Ser		
		355					360					365					
Val	Gln	Gly	Thr	Asp	Glu	Pro	Pro	Leu	Glu	Glu	His	Val	Gln	Ser	Thr		
	370					375					380						
Asn	Glu	Ser	Leu	Gln	Leu	Val	Asn	His	Glu	Ala	Asn	Ser	Val	Ala	Val		
385					390					395					400		
Asp	Val	Ile	Pro	His	Val	Asp	Asn	Pro	Thr	Phe	Glu	Glu	Asp	Glu	Thr		
				405					410					415			
Pro	Asn	Gln	Glu	Thr	Ala	Val	Arg	Glu	Ile	Lys	Ser						
			420					425									

&lt;210&gt; 12

&lt;211&gt; 428

&lt;212&gt; PRT

&lt;213&gt; Mus musculus

&lt;400&gt; 12

Met	Gly	Pro	Pro	Pro	Gly	Ile	Gly	Val	Tyr	Cys	Arg	Gly	Gly	Cys	Gly		
1				5				10						15			
Ala	Ala	Arg	Leu	Leu	Ala	Trp	Cys	Phe	Leu	Leu	Ala	Leu	Ser	Pro	His		
			20				25					30					
Ala	Pro	Gly	Ser	Arg	Gly	Ala	Glu	Ala	Val	Trp	Thr	Ala	Tyr	Leu	Asn		
		35				40					45						
Val	Ser	Trp	Arg	Val	Pro	His	Thr	Gly	Val	Asn	Arg	Thr	Val	Trp	Glu		

50		55		60
Leu Ser Glu Glu Gly Val Tyr Gly Gln Asp Ser Pro Leu Glu Pro Val				
65		70		75
Ser Gly Val Leu Val Pro Pro Asp Gly Pro Gly Ala Leu Asn Ala Cys				80
	85		90	95
Asn Pro His Thr Asn Phe Thr Val Pro Thr Val Trp Gly Ser Thr Val				
	100		105	110
Gln Val Ser Trp Leu Ala Leu Ile Gln Arg Gly Gly Ser Cys Thr Phe				
	115		120	125
Ala Asp Asn Ile His Leu Ala Ser Glu Arg Gly Ala Ser Gly Ala Val				
	130		135	140
Ile Phe Asn Phe Pro Gly Thr Arg Asn Glu Val Ile Pro Met Ser His				
	145		150	155
Pro Gly Ala Gly Asp Ile Val Ala Ile Met Ile Gly Asn Leu Lys Gly				
	165		170	175
Thr Lys Ile Leu Gln Ser Ile Gln Arg Gly Ile Gln Val Thr Met Val				
	180		185	190
Ile Glu Val Gly Lys Lys His Gly Pro Trp Val Asn His Tyr Ser Ile				
	195		200	205
Phe Phe Val Ser Val Ser Phe Phe Ile Ile Thr Ala Ala Thr Val Gly				
	210		215	220
Tyr Phe Ile Phe Tyr Ser Ala Arg Arg Leu Arg Asn Ala Arg Ala Gln				
	225		230	235
Ser Arg Lys Gln Arg Gln Leu Lys Ala Asp Ala Lys Lys Ala Ile Gly				
	245		250	255
Lys Leu Gln Leu Arg Thr Leu Lys Gln Gly Asp Lys Glu Ile Gly Pro				
	260		265	270
Asp Gly Asp Ser Cys Ala Val Cys Ile Glu Leu Tyr Lys Pro Asn Asp				
	275		280	285
Leu Val Arg Ile Leu Thr Cys Asn His Ile Phe His Lys Thr Cys Val				
	290		295	300
Asp Pro Trp Leu Leu Glu His Arg Thr Cys Pro Met Cys Lys Cys Asp				
	305		310	315
Ile Leu Lys Ala Leu Gly Ile Glu Val Asp Val Glu Asp Gly Ser Val				
	325		330	335
Ser Leu Gln Val Pro Val Ser Asn Glu Ala Ser Asn Thr Ala Ser Pro				
	340		345	350
His Glu Glu Asp Ser Arg Ser Glu Thr Ala Ser Ser Gly Tyr Ala Ser				
	355		360	365
Val Gln Gly Ala Asp Glu Pro Pro Leu Glu Glu His Ala Gln Ser Ala				
	370		375	380
Asn Glu Asn Leu Gln Leu Val Asn His Glu Ala Asn Ser Val Ala Val				
	385		390	395
Asp Val Val Pro His Val Asp Asn Pro Thr Phe Glu Glu Asp Glu Thr				
	405		410	415
Pro Asp Gln Glu Ala Ala Val Arg Glu Ile Lys Ser				
	420		425	

&lt;210&gt; 13

&lt;211&gt; 1291

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 13

Met Ala Gly Ala Ala Ser Pro Cys Ala Asn Gly Cys Gly Pro Gly Ala				
1	5	10	15	
Pro Ser Asp Ala Glu Val Leu His Leu Cys Arg Ser Leu Glu Val Gly				

[illegible]

Tyr Ser Glu Asn Asp Ile Ser Asn Ser Ile Lys Asn Gly Ile Leu Tyr  
 485 490 495  
 Leu Glu Asp Pro Val Asn His Glu Trp Tyr Pro His Tyr Phe Val Leu  
 500 505 510  
 Thr Ser Ser Lys Ile Tyr Tyr Ser Glu Glu Thr Ser Ser Asp Gln Gly  
 515 520 525  
 Asn Glu Asp Glu Glu Glu Pro Lys Glu Val Ser Ser Ser Thr Glu Leu  
 530 535 540  
 His Ser Asn Glu Lys Trp Phe His Gly Lys Leu Gly Ala Gly Arg Asp  
 545 550 555 560  
 Gly Arg His Ile Ala Glu Arg Leu Leu Thr Glu Tyr Cys Ile Glu Thr  
 565 570 575  
 Gly Ala Pro Asp Gly Ser Phe Leu Val Arg Glu Ser Glu Thr Phe Val  
 580 585 590  
 Gly Asp Tyr Thr Leu Ser Phe Trp Arg Asn Gly Lys Val Gln His Cys  
 595 600 605  
 Arg Ile His Ser Arg Gln Asp Ala Gly Thr Pro Lys Phe Phe Leu Thr  
 610 615 620  
 Asp Asn Leu Val Phe Asp Ser Leu Tyr Asp Leu Ile Thr His Tyr Gln  
 625 630 635 640  
 Gln Val Pro Leu Arg Cys Asn Glu Phe Glu Met Arg Leu Ser Glu Pro  
 645 650 655  
 Val Pro Gln Thr Asn Ala His Glu Ser Lys Glu Trp Tyr His Ala Ser  
 660 665 670  
 Leu Thr Arg Ala Gln Ala Glu His Met Leu Met Arg Val Pro Arg Asp  
 675 680 685  
 Gly Ala Phe Leu Val Arg Lys Arg Asn Glu Pro Asn Ser Tyr Ala Ile  
 690 695 700  
 Ser Phe Arg Ala Glu Gly Lys Ile Lys His Cys Arg Val Gln Gln Glu  
 705 710 715 720  
 Gly Gln Thr Val Met Leu Gly Asn Ser Glu Phe Asp Ser Leu Val Asp  
 725 730 735  
 Leu Ile Ser Tyr Tyr Glu Lys His Pro Leu Tyr Arg Lys Met Lys Leu  
 740 745 750  
 Arg Tyr Pro Ile Asn Glu Glu Ala Leu Glu Lys Ile Gly Thr Ala Glu  
 755 760 765  
 Pro Asp Tyr Gly Ala Leu Tyr Glu Gly Arg Asn Pro Gly Phe Tyr Val  
 770 775 780  
 Glu Ala Asn Pro Met Pro Thr Phe Lys Cys Ala Val Lys Ala Leu Phe  
 785 790 795 800  
 Asp Tyr Lys Ala Gln Arg Glu Asp Glu Leu Thr Phe Ile Lys Ser Ala  
 805 810 815  
 Ile Ile Gln Asn Val Glu Lys Gln Glu Gly Gly Trp Trp Arg Gly Asp  
 820 825 830  
 Tyr Gly Gly Lys Lys Gln Leu Trp Phe Pro Ser Asn Tyr Val Glu Glu  
 835 840 845  
 Met Val Asn Pro Val Ala Leu Glu Pro Glu Arg Glu His Leu Asp Glu  
 850 855 860  
 Asn Ser Pro Leu Gly Asp Leu Leu Arg Gly Val Leu Asp Val Pro Ala  
 865 870 875 880  
 Cys Gln Ile Ala Ile Arg Pro Glu Gly Lys Asn Asn Arg Leu Phe Val  
 885 890 895  
 Phe Ser Ile Ser Met Ala Ser Val Ala His Trp Ser Leu Asp Val Ala  
 900 905 910  
 Ala Asp Ser Gln Glu Glu Leu Gln Asp Trp Val Lys Lys Ile Arg Glu  
 915 920 925  
 Val Ala Gln Thr Ala Asp Ala Arg Leu Thr Glu Gly Lys Ile Met Glu

930		935		940
Arg Arg Lys Lys Ile Ala Leu Glu Leu Ser Glu Leu Val Val Tyr Cys				
945		950		955
Arg Pro Val Pro Phe Asp Glu Glu Lys Ile Gly Thr Glu Arg Ala Cys				
	965		970	975
Tyr Arg Asp Met Ser Ser Phe Pro Glu Thr Lys Ala Glu Lys Tyr Val				
	980		985	990
Asn Lys Ala Lys Gly Lys Lys Phe Leu Gln Tyr Asn Arg Leu Gln Leu				
	995	1000		1005
Ser Arg Ile Tyr Pro Lys Gly Gln Arg Leu Asp Ser Ser Asn Tyr Asp				
1010		1015		1020
Pro Leu Pro Met Trp Ile Cys Gly Ser Gln Leu Val Ala Leu Asn Phe				
1025		1030		1035
Gln Thr Pro Asp Lys Pro Met Gln Met Asn Gln Ala Leu Phe Met Thr				
	1045		1050	1055
Gly Arg His Cys Gly Tyr Val Leu Gln Pro Ser Thr Met Arg Asp Glu				
	1060		1065	1070
Ala Phe Asp Pro Phe Asp Lys Ser Ser Leu Arg Gly Leu Glu Pro Cys				
	1075	1080		1085
Ala Ile Ser Ile Glu Val Leu Gly Ala Arg His Leu Pro Lys Asn Gly				
1090		1095		1100
Arg Gly Ile Val Cys Pro Phe Val Glu Ile Glu Val Ala Gly Ala Glu				
1105		1110		1115
Tyr Asp Ser Thr Lys Gln Lys Thr Glu Phe Val Val Asp Asn Gly Leu				
	1125		1130	1135
Asn Pro Val Trp Pro Ala Lys Pro Phe His Phe Gln Ile Ser Asn Pro				
	1140		1145	1150
Glu Phe Ala Phe Leu Arg Phe Val Val Tyr Glu Glu Asp Met Phe Ser				
	1155	1160		1165
Asp Gln Asn Phe Leu Ala Gln Ala Thr Phe Pro Val Lys Gly Leu Lys				
1170		1175		1180
Thr Gly Tyr Arg Ala Val Pro Leu Lys Asn Asn Tyr Ser Glu Asp Leu				
1185		1190		1195
Glu Leu Ala Ser Leu Leu Ile Lys Ile Asp Ile Phe Pro Ala Lys Gln				
	1205		1210	1215
Glu Asn Gly Asp Leu Ser Pro Phe Ser Gly Thr Ser Leu Arg Glu Arg				
	1220		1225	1230
Gly Ser Asp Ala Ser Gly Gln Leu Phe His Gly Arg Ala Arg Glu Gly				
	1235	1240		1245
Ser Phe Glu Ser Arg Tyr Gln Gln Pro Phe Glu Asp Phe Arg Ile Ser				
1250		1255		1260
Gln Glu His Leu Ala Asp His Phe Asp Ser Arg Glu Arg Arg Ala Pro				
1265		1270		1275
Arg Arg Thr Arg Val Asn Gly Asp Asn Arg Leu				
	1285		1290	

&lt;210&gt; 14

&lt;211&gt; 1178

&lt;212&gt; PRT

&lt;213&gt; Mus musculus

&lt;400&gt; 14

Met Glu Phe Arg Leu Lys Thr Leu Ser Leu Gln Ala Thr Ser Glu Asp
1 5 10 15
Glu Val Asn Met Trp Ile Lys Gly Leu Thr Trp Leu Met Glu Asp Thr
20 25 30
Leu Gln Ala Ala Thr Pro Leu Gln Ile Glu Arg Trp Leu Arg Lys Gln



		35					40				45				
Phe	Tyr	Ser	Val	Asp	Arg	Asn	Arg	Glu	Asp	Arg	Ile	Ser	Ala	Lys	Asp
50						55					60				
Leu	Lys	Asn	Met	Leu	Ser	Gln	Val	Asn	Tyr	Arg	Val	Pro	Asn	Met	Arg
65						70				75					80
Phe	Leu	Arg	Glu	Arg	Leu	Thr	Asp	Leu	Glu	Gln	Arg	Ser	Gly	Asp	Ile
				85					90					95	
Thr	Tyr	Gly	Gln	Phe	Ala	Gln	Leu	Tyr	Arg	Ser	Leu	Met	Tyr	Ser	Ala
			100					105					110		
Gln	Lys	Thr	Met	Asp	Leu	Pro	Phe	Leu	Glu	Thr	Asn	Ala	Leu	Arg	Thr
			115					120				125			
Gly	Glu	Arg	Pro	Glu	His	Cys	Gln	Val	Ser	Leu	Ser	Glu	Phe	Gln	Gln
	130					135					140				
Phe	Leu	Leu	Glu	Tyr	Gln	Gly	Glu	Leu	Trp	Ala	Val	Asp	Arg	Leu	Gln
145					150					155					160
Val	Gln	Glu	Phe	Met	Leu	Ser	Phe	Leu	Arg	Asp	Pro	Leu	Arg	Glu	Ile
				165					170					175	
Glu	Glu	Pro	Tyr	Phe	Phe	Leu	Asp	Glu	Leu	Val	Thr	Phe	Leu	Phe	Ser
			180					185					190		
Lys	Glu	Asn	Ser	Val	Trp	Asn	Ser	Gln	Leu	Asp	Ala	Val	Cys	Pro	Asp
		195					200					205			
Thr	Met	Asn	Asn	Pro	Leu	Ser	His	Tyr	Trp	Ile	Ser	Ser	Ser	His	Asn
	210					215					220				
Thr	Tyr	Leu	Thr	Gly	Asp	Gln	Phe	Ser	Ser	Glu	Ser	Ser	Leu	Glu	Ala
225					230					235					240
Tyr	Ala	Arg	Cys	Leu	Arg	Met	Gly	Cys	Arg	Cys	Ile	Glu	Leu	Asp	Cys
				245					250					255	
Trp	Asp	Gly	Pro	Asp	Gly	Met	Pro	Val	Ile	Tyr	His	Gly	His	Thr	Leu
			260					265					270		
Thr	Thr	Lys	Ile	Lys	Phe	Ser	Asp	Val	Leu	His	Thr	Ile	Lys	Glu	His
		275					280					285			
Ala	Phe	Val	Ala	Ser	Glu	Tyr	Pro	Val	Ile	Leu	Ser	Ile	Glu	Asp	His
	290					295					300				
Cys	Ser	Ile	Ala	Gln	Gln	Arg	Asn	Met	Ala	Gln	His	Phe	Arg	Lys	Val
305					310					315					320
Leu	Gly	Asp	Thr	Leu	Leu	Thr	Lys	Pro	Val	Asp	Ile	Ala	Ala	Asp	Gly
				325					330					335	
Leu	Pro	Ser	Pro	Asn	Gln	Leu	Arg	Arg	Lys	Ile	Leu	Ile	Lys	His	Lys
			340					345					350		
Lys	Leu	Ala	Glu	Gly	Ser	Ala	Tyr	Glu	Glu	Val	Pro	Thr	Ser	Val	Met
	355						360					365			
Tyr	Ser	Glu	Asn	Asp	Ile	Ser	Asn	Ser	Ile	Lys	Asn	Gly	Ile	Leu	Tyr
	370					375					380				
Leu	Glu	Asp	Pro	Val	Asn	His	Glu	Trp	Tyr	Pro	His	Tyr	Phe	Val	Leu
385					390					395					400
Thr	Ser	Ser	Lys	Ile	Tyr	Tyr	Ser	Glu	Glu	Thr	Ser	Ser	Asp	Gln	Gly
			405					410						415	
Asn	Glu	Asp	Glu	Glu	Glu	Pro	Lys	Glu	Ala	Ser	Ser	Ser	Thr	Glu	Leu
			420					425					430		
His	Ser	Ser	Glu	Lys	Trp	Phe	His	Gly	Lys	Leu	Gly	Ala	Gly	Arg	Asp
		435					440					445			
Gly	Arg	His	Ile	Ala	Glu	Arg	Leu	Leu	Thr	Glu	Tyr	Cys	Ile	Glu	Thr
	450					455				460					
Gly	Ala	Pro	Asp	Gly	Ser	Phe	Leu	Val	Arg	Glu	Ser	Glu	Thr	Phe	Val
465					470				475						480
Gly	Asp	Tyr	Thr	Leu	Ser	Phe	Trp	Arg	Asn	Gly	Lys	Val	Gln	His	Cys
				485				490						495	

Arg	Ile	His	Ser	Arg	Gln	Asp	Ala	Gly	Thr	Pro	Lys	Phe	Phe	Leu	Thr
			500					505					510		
Asp	Asn	Leu	Val	Phe	Asp	Ser	Leu	Tyr	Asp	Leu	Ile	Thr	His	Tyr	Gln
		515					520					525			
Gln	Val	Pro	Leu	Arg	Cys	Asn	Glu	Phe	Glu	Met	Arg	Leu	Ser	Glu	Pro
	530					535					540				
Val	Pro	Gln	Thr	Asn	Ala	His	Glu	Ser	Lys	Glu	Trp	Tyr	His	Ala	Ser
545					550					555					560
Leu	Thr	Arg	Ala	Gln	Ala	Glu	His	Met	Leu	Met	Arg	Val	Pro	Arg	Asp
			565						570					575	
Gly	Ala	Phe	Leu	Val	Arg	Lys	Arg	Asn	Glu	Pro	Asn	Ser	Tyr	Ala	Ile
			580					585					590		
Ser	Phe	Arg	Ala	Glu	Gly	Lys	Ile	Lys	His	Cys	Arg	Val	Gln	Gln	Glu
		595					600					605			
Gly	Gln	Thr	Val	Met	Leu	Gly	Asn	Ser	Glu	Phe	Asp	Ser	Leu	Val	Asp
	610					615					620				
Leu	Ile	Ser	Tyr	Tyr	Glu	Lys	His	Pro	Leu	Tyr	Arg	Lys	Met	Lys	Leu
625					630					635					640
Arg	Tyr	Pro	Ile	Asn	Glu	Glu	Ala	Leu	Glu	Lys	Ile	Gly	Thr	Ala	Glu
				645					650					655	
Pro	Asp	Tyr	Gly	Ala	Leu	Tyr	Glu	Gly	Arg	Asn	Pro	Gly	Phe	Tyr	Val
			660					665					670		
Glu	Ala	Asn	Pro	Met	Pro	Thr	Phe	Lys	Cys	Ala	Val	Lys	Ala	Leu	Phe
		675					680					685			
Asp	Tyr	Lys	Ala	Gln	Arg	Glu	Asp	Glu	Leu	Thr	Phe	Thr	Lys	Ser	Ala
	690					695					700				
Ile	Ile	Gln	Asn	Val	Glu	Lys	Gln	Asp	Gly	Gly	Trp	Trp	Arg	Gly	Asp
705					710					715					720
Tyr	Gly	Gly	Lys	Lys	Gln	Leu	Trp	Phe	Pro	Ser	Asn	Tyr	Val	Glu	Glu
				725					730					735	
Met	Ile	Asn	Pro	Ala	Val	Leu	Glu	Pro	Glu	Arg	Glu	His	Leu	Asp	Glu
			740					745					750		
Asn	Ser	Pro	Leu	Gly	Asp	Leu	Leu	Arg	Gly	Val	Leu	Asp	Val	Pro	Ala
		755					760					765			
Cys	Gln	Ile	Ala	Ile	Arg	Pro	Glu	Gly	Lys	Asn	Asn	Arg	Leu	Phe	Val
	770					775					780				
Phe	Ser	Ile	Ser	Met	Pro	Ser	Val	Ala	Gln	Trp	Ser	Leu	Asp	Val	Ala
785					790					795					800
Ala	Asp	Ser	Gln	Glu	Glu	Leu	Gln	Asp	Trp	Val	Lys	Lys	Ile	Arg	Glu
				805					810					815	
Val	Ala	Gln	Thr	Ala	Asp	Ala	Arg	Leu	Thr	Glu	Gly	Lys	Met	Met	Glu
			820					825					830		
Arg	Arg	Lys	Lys	Ile	Ala	Leu	Glu	Leu	Ser	Glu	Leu	Val	Val	Tyr	Cys
		835					840					845			
Arg	Pro	Val	Pro	Phe	Asp	Glu	Lys	Ile	Gly	Thr	Glu	Arg	Ala	Cys	
	850					855					860				
Tyr	Arg	Asp	Met	Ser	Ser	Phe	Pro	Glu	Thr	Lys	Ala	Glu	Lys	Tyr	Val
865					870					875					880
Asn	Lys	Ala	Lys	Gly	Lys	Lys	Phe	Leu	Gln	Tyr	Asn	Arg	Leu	Gln	Leu
				885					890					895	
Ser	Arg	Ile	Tyr	Pro	Lys	Gly	Gln	Arg	Leu	Asp	Ser	Ser	Asn	Tyr	Asp
			900					905					910		
Pro	Leu	Pro	Met	Trp	Ile	Cys	Gly	Ser	Gln	Leu	Val	Ala	Leu	Asn	Phe
			915				920					925			
Gln	Thr	Pro	Asp	Lys	Pro	Met	Gln	Met	Asn	Gln	Ala	Leu	Phe	Met	Ala
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Gly	Gly	His	Cys	Gly	Tyr	Val	Leu	Gln	Pro	Ser	Thr	Met	Arg	Asp	Glu

945					950					955					960
Ala	Phe	Asp	Pro	Phe	Asp	Lys	Ser	Ser	Leu	Arg	Gly	Leu	Glu	Pro	Cys
				965					970					975	
Val	Ile	Cys	Ile	Glu	Val	Leu	Gly	Ala	Arg	His	Leu	Pro	Lys	Asn	Gly
			980					985					990		
Arg	Gly	Ile	Val	Cys	Pro	Phe	Val	Glu	Ile	Glu	Val	Ala	Gly	Ala	Glu
		995					1000					1005			
Tyr	Asp	Ser	Thr	Lys	Gln	Lys	Thr	Glu	Phe	Val	Val	Asp	Asn	Gly	Leu
	1010					1015					1020				
Asn	Pro	Val	Trp	Pro	Ala	Lys	Pro	Phe	His	Phe	Gln	Ile	Ser	Asn	Pro
1025					1030					1035					1040
Glu	Phe	Ala	Phe	Leu	Arg	Phe	Val	Val	Tyr	Glu	Glu	Asp	Met	Phe	Ser
			1045						1050					1055	
Asp	Gln	Asn	Phe	Leu	Ala	Gln	Ala	Thr	Phe	Pro	Val	Lys	Gly	Leu	Lys
			1060					1065					1070		
Thr	Gly	Tyr	Arg	Ala	Val	Pro	Leu	Lys	Asn	Asn	Tyr	Ser	Glu	Asp	Leu
		1075					1080					1085			
Glu	Leu	Ala	Ser	Leu	Leu	Ile	Lys	Ile	Asp	Ile	Phe	Pro	Ala	Lys	Glu
	1090					1095					1100				
Asn	Gly	Asp	Leu	Ser	Pro	Phe	Ser	Gly	Ile	Ser	Leu	Arg	Glu	Arg	Ala
1105					1110					1115					1120
Ser	Asp	Ala	Ser	Ser	Gln	Leu	Phe	His	Val	Arg	Ala	Arg	Glu	Gly	Ser
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Phe	Glu	Ala	Arg	Tyr	Gln	Gln	Pro	Phe	Glu	Asp	Phe	Arg	Ile	Ser	Gln
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Glu	His	Leu	Ala	Asp	His	Phe	Asp	Ser	Arg	Glu	Arg	Arg	Ala	Pro	Arg
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Arg	Thr	Arg	Val	Asn	Gly	Asp	Asn	Arg	Leu						
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<210> 15
<211> 706
<212> PRT
<213> Homo sapiens
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<400> 15															
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			20					25					30		
Val	Lys	Glu	Tyr	Val	Glu	Ser	Glu	Asn	Gly	Gln	Met	Tyr	Ile	Gln	Lys
		35					40					45			
Lys	Pro	Thr	Met	Tyr	Pro	Pro	Trp	Asp	Ser	Thr	Phe	Asp	Ala	His	Ile
	50					55					60				
Asn	Lys	Gly	Arg	Val	Met	Gln	Ile	Ile	Val	Lys	Gly	Lys	Asn	Val	Asp
65					70					75				80	
Leu	Ile	Ser	Glu	Thr	Thr	Val	Glu	Leu	Tyr	Ser	Leu	Ala	Glu	Arg	Cys
				85				90					95		
Arg	Lys	Asn	Asn	Gly	Lys	Thr	Glu	Ile	Trp	Leu	Glu	Leu	Lys	Pro	Gln
			100					105					110		
Gly	Arg	Met	Leu	Met	Asn	Ala	Arg	Tyr	Phe	Leu	Glu	Met	Ser	Asp	Thr
		115					120					125			
Lys	Asp	Met	Asn	Glu	Phe	Glu	Thr	Glu	Gly	Phe	Phe	Ala	Leu	His	Gln
	130					135					140				
Arg	Arg	Gly	Ala	Ile	Lys	Gln	Ala	Lys	Val	His	His	Val	Lys	Cys	His
145					150					155					160
Glu	Phe	Thr	Ala	Thr	Phe	Phe	Pro	Gln	Pro	Thr	Phe	Cys	Ser	Val	Cys

				165					170					175		
His	Glu	Phe	Val	Trp	Gly	Leu	Asn	Lys	Gln	Gly	Tyr	Gln	Cys	Arg	Gln	
			180					185					190			
Cys	Asn	Ala	Ala	Ile	His	Lys	Lys	Cys	Ile	Asp	Lys	Val	Ile	Ala	Lys	
		195					200					205				
Cys	Thr	Gly	Ser	Ala	Ile	Asn	Ser	Arg	Glu	Thr	Met	Phe	His	Lys	Glu	
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Arg	Phe	Lys	Ile	Asp	Met	Pro	His	Arg	Phe	Lys	Val	Tyr	Asn	Tyr	Lys	
225					230					235					240	
Ser	Pro	Thr	Phe	Cys	Glu	His	Cys	Gly	Thr	Leu	Leu	Trp	Gly	Leu	Ala	
				245					250					255		
Arg	Gln	Gly	Leu	Lys	Cys	Asp	Ala	Cys	Gly	Met	Asn	Val	His	His	Arg	
			260					265					270			
Cys	Gln	Thr	Lys	Val	Ala	Asn	Leu	Cys	Gly	Ile	Asn	Gln	Lys	Leu	Met	
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Ala	Glu	Ala	Leu	Ala	Met	Ile	Glu	Ser	Thr	Gln	Gln	Ala	Arg	Cys	Leu	
	290					295					300					
Arg	Asp	Thr	Glu	Gln	Ile	Phe	Arg	Glu	Gly	Pro	Val	Glu	Ile	Gly	Leu	
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Pro	Cys	Ser	Ile	Lys	Asn	Glu	Ala	Arg	Pro	Pro	Cys	Leu	Pro	Thr	Pro	
				325					330					335		
Gly	Lys	Arg	Glu	Pro	Gln	Gly	Ile	Ser	Trp	Glu	Ser	Pro	Leu	Asp	Glu	
			340					345					350			
Val	Asp	Lys	Met	Cys	His	Leu	Pro	Glu	Pro	Glu	Leu	Asn	Lys	Glu	Arg	
		355					360					365				
Pro	Ser	Leu	Gln	Ile	Lys	Leu	Lys	Ile	Glu	Asp	Phe	Ile	Leu	His	Lys	
	370					375					380					
Met	Leu	Gly	Lys	Gly	Ser	Phe	Gly	Lys	Val	Phe	Leu	Ala	Glu	Phe	Lys	
385					390					395					400	
Lys	Thr	Asn	Gln	Phe	Phe	Ala	Ile	Lys	Ala	Leu	Lys	Lys	Asp	Val	Val	
				405					410					415		
Leu	Met	Asp	Asp	Asp	Val	Glu	Cys	Thr	Met	Val	Glu	Lys	Arg	Val	Leu	
			420					425					430			
Ser	Leu	Ala	Trp	Glu	His	Pro	Phe	Leu	Thr	His	Met	Phe	Cys	Thr	Phe	
		435					440					445				
Gln	Thr	Lys	Glu	Asn	Leu	Phe	Phe	Val	Met	Glu	Tyr	Leu	Asn	Gly	Gly	
	450					455					460					
Asp	Leu	Met	Tyr	His	Ile	Gln	Ser	Cys	His	Lys	Phe	Asp	Leu	Ser	Arg	
465					470					475					480	
Ala	Thr	Phe	Tyr	Ala	Ala	Glu	Ile	Ile	Leu	Gly	Leu	Gln	Phe	Leu	His	
				485					490					495		
Ser	Lys	Gly	Ile	Val	Tyr	Arg	Asp	Leu	Lys	Leu	Asp	Asn	Ile	Leu	Leu	
			500					505					510			
Asp	Lys	Asp	Gly	His	Ile	Lys	Ile	Ala	Asp	Phe	Gly	Met	Cys	Lys	Glu	
		515					520									

Arg Gly Asp Ile Arg Gln His Pro Leu Phe Arg Glu Ile Asn Trp Glu  
 625 630 635 640  
 Glu Leu Glu Arg Lys Glu Ile Asp Pro Pro Phe Arg Pro Lys Val Lys  
 645 650 655  
 Ser Pro Phe Asp Cys Ser Asn Phe Asp Lys Glu Phe Leu Asn Glu Lys  
 660 665 670  
 Pro Arg Leu Ser Phe Ala Asp Arg Ala Leu Ile Asn Ser Met Asp Gln  
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 Asn Met Phe Arg Asn Phe Ser Phe Met Asn Pro Gly Met Glu Arg Leu  
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 Ile Ser  
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<210> 16

<211> 707

<212> PRT

<213> Mus musculus

<400> 16

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 Val Lys Glu Tyr Val Glu Ser Glu Asn Gly Gln Met Tyr Ile Gln Lys  
 35 40 45  
 Lys Pro Thr Met Tyr Pro Pro Trp Asp Ser Thr Phe Asp Ala His Ile  
 50 55 60  
 Asn Lys Gly Arg Val Met Gln Ile Ile Val Lys Gly Lys Asn Val Asp  
 65 70 75 80  
 Leu Ile Ser Glu Thr Thr Val Glu Leu Tyr Ser Leu Ala Glu Arg Cys  
 85 90 95  
 Arg Lys Asn Asn Gly Arg Thr Glu Ile Trp Leu Glu Leu Lys Pro Gln  
 100 105 110  
 Gly Arg Met Leu Met Asn Ala Arg Tyr Phe Leu Glu Met Ser Asp Thr  
 115 120 125  
 Lys Asp Met Ser Glu Phe Glu Asn Glu Gly Phe Phe Ala Leu His Gln  
 130 135 140  
 Arg Arg Gly Ala Ile Lys Gln Ala Lys Val His His Val Lys Cys His  
 145 150 155 160  
 Glu Phe Thr Ala Thr Phe Phe Pro Gln Pro Thr Phe Cys Ser Val Cys  
 165 170 175  
 His Glu Phe Val Trp Gly Leu Asn Lys Gln Gly Tyr Gln Cys Arg Gln  
 180 185 190  
 Cys Asn Ala Ala Ile His Lys Lys Cys Ile Asp Lys Val Ile Ala Lys  
 195 200 205  
 Cys Thr Gly Ser Ala Ile Asn Ser Arg Glu Thr Met Phe His Lys Glu  
 210 215 220  
 Arg Phe Lys Ile Asp Met Pro His Arg Phe Lys Val Tyr Asn Tyr Lys  
 225 230 235 240  
 Ser Pro Thr Phe Cys Glu His Cys Gly Thr Leu Leu Trp Gly Leu Ala  
 245 250 255  
 Arg Gln Gly Leu Lys Cys Asp Ala Cys Gly Met Asn Val His His Arg  
 260 265 270  
 Cys Gln Thr Lys Val Ala Asn Leu Cys Gly Ile Asn Gln Lys Leu Met  
 275 280 285  
 Ala Glu Ala Leu Ala Met Ile Glu Ser Thr Gln Gln Ala Arg Ser Leu  
 290 295 300

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Arg Asp Ser Glu His Ile Phe Arg Glu Gly Pro Val Glu Ile Gly Leu
305          310          315          320
Pro Cys Ser Thr Lys Asn Glu Thr Arg Pro Pro Cys Val Pro Thr Pro
          325          330          335
Gly Lys Arg Glu Pro Gln Gly Ile Ser Trp Asp Ser Pro Leu Asp Gly
          340          345          350
Ser Asn Lys Ser Ala Gly Pro Pro Glu Pro Glu Val Ser Met Arg Arg
          355          360          365
Thr Ser Leu Gln Leu Lys Leu Lys Ile Asp Asp Phe Ile Leu His Lys
          370          375          380
Met Leu Gly Lys Gly Ser Phe Gly Lys Val Phe Leu Ala Glu Phe Lys
          385          390          395          400
Arg Thr Asn Gln Phe Phe Ala Ile Lys Ala Leu Lys Lys Asp Val Val
          405          410          415
Leu Met Asp Asp Asp Val Glu Cys Thr Met Val Glu Lys Arg Val Leu
          420          425          430
Ser Leu Ala Trp Glu His Pro Phe Leu Thr His Met Phe Cys Thr Phe
          435          440          445
Gln Thr Lys Glu Asn Leu Phe Phe Val Met Glu Tyr Leu Asn Gly Gly
          450          455          460
Asp Leu Met Tyr His Ile Gln Ser Cys His Lys Phe Asp Leu Ser Arg
          465          470          475          480
Ala Thr Phe Tyr Ala Ala Glu Val Ile Leu Gly Leu Gln Phe Leu His
          485          490          495
Ser Lys Gly Ile Val Tyr Arg Asp Leu Lys Leu Asp Asn Ile Leu Leu
          500          505          510
Asp Arg Asp Gly His Ile Lys Ile Ala Asp Phe Gly Met Cys Lys Glu
          515          520          525
Asn Met Leu Gly Asp Ala Lys Thr Asn Thr Phe Cys Gly Thr Pro Asp
          530          535          540
Tyr Ile Ala Pro Glu Ile Leu Leu Gly Gln Lys Tyr Asn His Ser Val
          545          550          555          560
Asp Trp Trp Ser Phe Gly Val Leu Val Tyr Glu Met Leu Ile Gly Gln
          565          570          575
Ser Pro Phe His Gly Gln Asp Glu Glu Glu Leu Phe His Ser Ile Arg
          580          585          590
Met Asp Asn Pro Phe Tyr Pro Arg Trp Leu Glu Arg Glu Ala Lys Asp
          595          600          605
Leu Leu Val Lys Leu Phe Val Arg Glu Pro Glu Lys Arg Leu Gly Val
          610          615          620
Arg Gly Asp Ile Arg Gln His Pro Leu Phe Arg Glu Ile Asn Trp Glu
          625          630          635          640
Glu Leu Glu Arg Lys Glu Ile Asp Pro Pro Phe Arg Pro Lys Val Lys
          645          650          655
Ser Pro Tyr Asp Cys Ser Asn Phe Asp Lys Glu Phe Leu Ser Glu Lys
          660          665          670
Pro Arg Leu Ser Phe Ala Asp Arg Ala Leu Ile Asn Ser Met Asp Gln
          675          680          685
Asn Met Phe Ser Asn Phe Ser Phe Ile Asn Pro Gly Met Glu Thr Leu
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Ile Cys Ser
705

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<210> 17

<211> 1047

<212> PRT

<213> Homo sapiens

&lt;400&gt; 17

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Gly	Ala	Gly	Gly	Gly	Gly	Ala	Ala	Ala	Gly	Ser	Ser	Ala	Tyr	Pro	Ala
		20						25					30		
Val	Cys	Arg	Val	Lys	Ile	Pro	Ala	Ala	Leu	Pro	Val	Ala	Ala	Ala	Pro
	35						40					45			
Tyr	Pro	Gly	Leu	Val	Glu	Thr	Gly	Val	Ala	Gly	Thr	Leu	Gly	Gly	Gly
	50					55					60				
Ala	Ala	Leu	Gly	Ser	Glu	Phe	Leu	Gly	Ala	Gly	Ser	Val	Ala	Gly	Ala
65					70					75					80
Leu	Gly	Gly	Ala	Gly	Leu	Thr	Gly	Gly	Gly	Thr	Ala	Ala	Gly	Val	Ala
				85					90					95	
Gly	Ala	Ala	Ala	Gly	Val	Ala	Gly	Ala	Ala	Val	Ala	Gly	Pro	Ser	Gly
			100					105					110		
Asp	Met	Ala	Leu	Thr	Lys	Leu	Pro	Thr	Ser	Leu	Leu	Ala	Glu	Thr	Leu
		115					120					125			
Gly	Pro	Gly	Gly	Gly	Phe	Pro	Pro	Leu	Pro	Pro	Pro	Pro	Tyr	Leu	Pro
	130					135						140			
Pro	Leu	Gly	Ala	Gly	Leu	Gly	Thr	Val	Asp	Glu	Gly	Asp	Ser	Leu	Asp
145					150					155					160
Gly	Pro	Glu	Tyr	Glu	Glu	Glu	Glu	Val	Ala	Ile	Pro	Leu	Thr	Ala	Pro
				165					170					175	
Pro	Thr	Asn	Gln	Trp	Tyr	His	Gly	Lys	Leu	Asp	Arg	Thr	Ile	Ala	Glu
			180					185					190		
Glu	Arg	Leu	Arg	Gln	Ala	Gly	Lys	Ser	Gly	Ser	Tyr	Leu	Ile	Arg	Glu
		195					200					205			
Ser	Asp	Arg	Arg	Pro	Gly	Ser	Phe	Val	Leu	Ser	Phe	Leu	Ser	Gln	Met
	210					215					220				
Asn	Val	Val	Asn	His	Phe	Arg	Ile	Ile	Ala	Met	Cys	Gly	Asp	Tyr	Tyr
225					230					235					240
Ile	Gly	Gly	Arg	Arg	Phe	Ser	Ser	Leu	Ser	Asp	Leu	Ile	Gly	Tyr	Tyr
				245					250					255	
Ser	His	Val	Ser	Cys	Leu	Leu	Lys	Gly	Glu	Lys	Leu	Leu	Tyr	Pro	Val
			260					265					270		
Ala	Pro	Pro	Glu	Pro	Val	Glu	Asp	Arg	Arg	Arg	Val	Arg	Ala	Ile	Leu
		275					280					285			
Pro	Tyr	Thr	Lys	Val	Pro	Asp	Thr	Asp	Glu	Ile	Ser	Phe	Leu	Lys	Gly
	290					295					300				
Asp	Met	Phe	Ile	Val	His	Asn	Glu	Leu	Glu	Asp	Gly	Trp	Met	Trp	Val
305					310					315					320
Thr	Asn	Leu	Arg	Thr	Asp	Glu	Gln	Gly	Leu	Ile	Val	Glu	Asp	Leu	Val
				325					330					335	
Glu	Glu	Val	Gly	Arg	Glu	Glu	Asp	Pro	His	Glu	Gly	Lys	Ile	Trp	Phe
			340					345					350		
His	Gly	Lys	Ile	Ser	Lys	Gln	Glu	Ala	Tyr	Asn	Leu	Leu	Met	Thr	Val
		355					360						365		
Gly	Gln	Val	Cys	Ser	Phe	Leu	Val	Arg	Pro	Ser	Asp	Asn	Thr	Pro	Gly
		370				375					380				
Asp	Tyr	Ser	Leu	Tyr	Phe	Arg	Thr	Asn	Glu	Asn	Ile	Gln	Arg	Phe	Lys
385					390				395						400
Ile	Cys	Pro	Thr	Pro	Asn	Asn	Gln	Phe	Met	Met	Gly	Gly	Arg	Tyr	Tyr
				405				410						415	
Asn	Ser	Ile	Gly	Asp	Ile	Ile	Asp	His	Tyr	Arg	Lys	Glu	Gln	Ile	Val
			420					425					430		
Glu	Gly	Tyr	Tyr	Leu	Lys	Glu	Pro	Val	Pro	Met	Gln	Asp	Gln	Glu	Gln

Val	Leu	Asn	Asp	Thr	Val	Asp	Gly	Lys	Glu	Ile	Tyr	Asn	Thr	Ile	Arg
435	450				440	455			460						
Arg	Lys	Thr	Lys	Asp	Ala	Phe	Tyr	Lys	Asn	Ile	Val	Lys	Lys	Gly	Tyr
465					470				475						480
Leu	Leu	Lys	Lys	Gly	Lys	Gly	Lys	Arg	Trp	Lys	Asn	Leu	Tyr	Phe	Ile
				485					490						495
Leu	Glu	Gly	Ser	Asp	Ala	Gln	Leu	Ile	Tyr	Phe	Glu	Ser	Glu	Lys	Arg
			500					505					510		
Ala	Thr	Lys	Pro	Lys	Gly	Leu	Ile	Asp	Leu	Ser	Val	Cys	Ser	Val	Tyr
		515					520					525			
Val	Val	His	Asp	Ser	Leu	Phe	Gly	Arg	Pro	Asn	Cys	Phe	Gln	Ile	Val
	530					535					540				
Val	Gln	His	Phe	Ser	Glu	Glu	His	Tyr	Ile	Phe	Tyr	Phe	Ala	Gly	Glu
545					550					555					560
Thr	Pro	Glu	Gln	Ala	Glu	Asp	Trp	Met	Lys	Gly	Leu	Gln	Ala	Phe	Cys
				565					570						575
Asn	Leu	Arg	Lys	Ser	Ser	Pro	Gly	Thr	Ser	Asn	Lys	Arg	Leu	Arg	Gln
			580					585					590		
Val	Ser	Ser	Leu	Val	Leu	His	Ile	Glu	Glu	Ala	His	Lys	Leu	Pro	Val
		595					600					605			
Lys	His	Phe	Thr	Asn	Pro	Tyr	Cys	Asn	Ile	Tyr	Leu	Asn	Ser	Val	Gln
	610					615					620				
Val	Ala	Lys	Thr	His	Ala	Arg	Glu	Gly	Gln	Asn	Pro	Val	Trp	Ser	Glu
625					630					635					640
Glu	Phe	Val	Phe	Asp	Leu	Pro	Pro	Asp	Ile	Asn	Arg	Phe	Glu	Ile	
				645				650						655	
Thr	Leu	Ser	Asn	Lys	Thr	Lys	Lys	Ser	Lys	Asp	Pro	Asp	Ile	Leu	Phe
			660					665					670		
Met	Arg	Cys	Gln	Leu	Ser	Arg	Leu	Gln	Lys	Gly	His	Ala	Thr	Asp	Glu
		675					680					685			
Trp	Phe	Leu	Leu	Ser	Ser	His	Ile	Pro	Leu	Lys	Gly	Ile	Glu	Pro	Gly
	690					695					700				
Ser	Leu	Arg	Val	Arg	Ala	Arg	Tyr	Ser	Met	Glu	Lys	Ile	Met	Pro	Glu
705					710				715						720
Glu	Glu	Tyr	Ser	Glu	Phe	Lys	Glu	Leu	Ile	Leu	Gln	Lys	Glu	Leu	His
				725					730					735	
Val	Val	Tyr	Ala	Leu	Ser	His	Val	Cys	Gly	Gln	Asp	Arg	Thr	Leu	Leu
			740					745					750		
Ala	Ser	Ile	Leu	Leu	Arg	Ile	Phe	Leu	His	Glu	Lys	Leu	Glu	Ser	Leu
		755					760					765			
Leu	Leu	Cys	Thr	Leu	Asn	Asp	Arg	Glu	Ile	Ser	Met	Glu	Asp	Glu	Ala
	770					775					780				
Thr	Thr	Leu	Phe	Arg	Ala	Thr	Thr	Leu	Ala	Ser	Thr	Leu	Met	Glu	Gln
785					790					795					800
Tyr	Met	Lys	Ala	Thr	Ala	Thr	Gln	Phe	Val	His	His	Ala	Leu	Lys	Asp
				805					810					815	
Ser	Ile	Leu	Lys	Ile	Met	Glu	Ser	Lys	Gln	Ser	Cys	Glu	Leu	Ser	Pro
			820					825					830		
Ser	Lys	Leu	Glu	Lys	Asn	Glu	Asp	Val	Asn	Thr	Asn	Leu	Thr	His	Leu
		835					840					845			
Leu	Asn	Ile	Leu	Ser	Glu	Leu	Val	Glu	Lys	Ile	Phe	Met	Ala	Ser	Glu
	850					855					860				
Ile	Leu	Pro	Pro	Thr	Leu	Arg	Tyr	Ile	Tyr	Gly	Cys	Leu	Gln	Lys	Ser
865					870					875					880
Val	Gln	His	Lys	Trp	Pro	Thr	Asn	Thr	Thr	Met	Arg	Thr	Arg	Val	Val
				885					890						895



Ser Gly Phe Val Phe Leu Arg Leu Ile Cys Pro Ala Ile Leu Asn Pro  
 900 905 910  
 Arg Met Phe Asn Ile Ile Ser Asp Ser Pro Ser Pro Ile Ala Ala Arg  
 915 920 925  
 Thr Leu Ile Leu Val Ala Lys Ser Val Gln Asn Leu Ala Asn Leu Val  
 930 935 940  
 Glu Phe Gly Ala Lys Glu Pro Tyr Met Glu Gly Val Asn Pro Phe Ile  
 945 950 955 960  
 Lys Ser Asn Lys His Arg Met Ile Met Phe Leu Asp Glu Leu Gly Asn  
 965 970 975  
 Val Pro Glu Leu Pro Asp Thr Thr Glu His Ser Arg Thr Asp Leu Ser  
 980 985 990  
 Arg Asp Leu Ala Ala Leu His Glu Ile Cys Val Ala His Ser Asp Glu  
 995 1000 1005  
 Leu Arg Thr Leu Ser Asn Glu Arg Gly Ala Gln Gln His Val Leu Lys  
 1010 1015 1020  
 Lys Leu Leu Ala Ile Thr Glu Leu Leu Gln Gln Lys Gln Asn Gln Tyr  
 1025 1030 1035 1040  
 Thr Lys Thr Asn Asp Val Arg  
 1045

<210> 18  
 <211> 813  
 <212> PRT  
 <213> Mus musculus

<400> 18  
 Met Cys Gly Asp Tyr Tyr Ile Gly Gly Arg Arg Phe Ser Ser Leu Ser  
 1 5 10 15  
 Asp Leu Ile Gly Tyr Tyr Ser His Val Ser Cys Leu Leu Lys Gly Glu  
 20 25 30  
 Lys Leu Leu Tyr Pro Val Ala Pro Pro Glu Pro Val Glu Asp Arg Arg  
 35 40 45  
 Arg Val Arg Ala Ile Leu Pro Tyr Thr Lys Val Pro Asp Thr Asp Glu  
 50 55 60  
 Ile Ser Phe Leu Lys Gly Asp Met Phe Ile Val His Asn Glu Leu Glu  
 65 70 75 80  
 Asp Gly Trp Met Trp Val Thr Asn Leu Arg Thr Asp Glu Gln Gly Leu  
 85 90 95  
 Ile Val Glu Asp Leu Val Glu Glu Val Gly Arg Glu Glu Asp Pro His  
 100 105 110  
 Glu Gly Lys Ile Trp Phe His Gly Lys Ile Ser Lys Gln Glu Ala Tyr  
 115 120 125  
 Asn Leu Leu Met Thr Val Gly Gln Val Cys Ser Phe Leu Val Arg Pro  
 130 135 140  
 Ser Asp Asn Thr Pro Gly Asp Tyr Ser Leu Tyr Phe Arg Thr Asn Glu  
 145 150 155 160  
 Asn Ile Gln Arg Phe Lys Ile Cys Pro Thr Pro Asn Asn Gln Phe Met  
 165 170 175  
 Met Gly Gly Arg Tyr Tyr Asn Ser Ile Gly Asp Ile Ile Asp His Tyr  
 180 185 190  
 Arg Lys Glu Gln Ile Val Glu Gly Tyr Tyr Leu Lys Glu Pro Val Pro  
 195 200 205  
 Met Gln Asp Gln Gly Gln Val Leu Asn Asp Thr Val Asp Gly Lys Glu  
 210 215 220  
 Ile Tyr Asn Thr Ile Arg Arg Lys Thr Lys Asp Ala Phe Tyr Lys Asn  
 225 230 235 240

Ile Val Lys Lys Gly Tyr Leu Leu Lys Lys Gly Lys Gly Lys Arg Trp  
 245 250 255  
 Lys Asn Leu Tyr Phe Ile Leu Glu Gly Ser Asp Ala Gln Leu Ile Tyr  
 260 265 270  
 Phe Glu Ser Glu Lys Arg Ala Thr Lys Pro Lys Gly Leu Ile Asp Leu  
 275 280 285  
 Ser Val Cys Ser Val Tyr Val Val His Asp Ser Leu Phe Gly Arg Pro  
 290 295 300  
 Asn Cys Phe Gln Ile Val Val Gln His Phe Ser Glu Glu His Tyr Ile  
 305 310 315 320  
 Phe Tyr Phe Ala Gly Glu Thr Pro Glu Gln Ala Glu Asp Trp Met Lys  
 325 330 335  
 Gly Leu Gln Ala Phe Cys Ser Leu Arg Lys Ser Ser Pro Gly Thr Ser  
 340 345 350  
 Asn Lys Arg Leu Arg Gln Val Ser Ser Leu Val Leu His Ile Glu Glu  
 355 360 365  
 Ala His Lys Leu Pro Val Lys His Phe Thr Asn Pro Tyr Cys Asn Ile  
 370 375 380  
 Tyr Leu Asn Ser Val Gln Val Ala Lys Thr His Ala Arg Glu Gly Gln  
 385 390 395 400  
 Asn Pro Val Trp Ser Glu Glu Phe Val Phe Asp Asp Leu Pro Pro Asp  
 405 410 415  
 Ile Asn Arg Phe Glu Ile Thr Leu Ser Asn Lys Thr Lys Lys Ser Lys  
 420 425 430  
 Asp Pro Asp Ile Leu Phe Met Arg Cys Gln Leu Ser Arg Leu Gln Lys  
 435 440 445  
 Gly His Ala Thr Asp Glu Trp Phe Leu Leu Ser Ser His Ile Pro Leu  
 450 455 460  
 Lys Gly Ile Glu Pro Gly Ser Leu Arg Val Arg Ala Arg Tyr Ser Met  
 465 470 475 480  
 Glu Lys Ile Met Pro Glu Glu Glu Tyr Ser Glu Phe Lys Glu Leu Ile  
 485 490 495  
 Leu Gln Lys Glu Leu His Val Val Tyr Ala Leu Ser His Val Cys Gly  
 500 505 510  
 Gln Asp Arg Thr Leu Leu Ala Ser Ile Leu Leu Lys Ile Phe Leu His  
 515 520 525  
 Glu Lys Leu Glu Ser Leu Leu Leu Cys Thr Leu Asn Asp Arg Glu Ile  
 530 535 540  
 Ser Met Glu Asp Glu Ala Thr Thr Leu Phe Arg Ala Thr Thr Leu Ala  
 545 550 555 560  
 Ser Thr Leu Met Glu Gln Tyr Met Lys Ala Thr Ala Thr Gln Phe Val  
 565 570 575  
 His His Ala Leu Lys Asp Ser Ile Leu Lys Ile Met Glu Ser Lys Gln  
 580 585 590  
 Ser Cys Glu Leu Ser Pro Ser Lys Leu Glu Lys Asn Glu Asp Val Asn  
 595 600 605  
 Thr Asn Leu Ala His Leu Leu Ser Ile Leu Ser Glu Leu Val Glu Lys  
 610 615 620  
 Ile Phe Met Ala Ser Glu Ile Leu Pro Pro Thr Leu Arg Tyr Ile Tyr  
 625 630 635 640  
 Gly Cys Leu Gln Lys Ser Val Gln His Lys Trp Pro Thr Asn Asn Thr  
 645 650 655  
 Met Arg Thr Arg Val Val Ser Gly Phe Val Phe Leu Arg Leu Ile Cys  
 660 665 670  
 Pro Ala Ile Leu Asn Pro Arg Met Phe Asn Ile Ile Ser Asp Ser Pro  
 675 680 685  
 Ser Pro Ile Ala Ala Arg Thr Leu Thr Leu Val Ala Lys Ser Val Gln

690		695		700
Asn Leu Ala Asn Leu Val Glu Phe Gly Ala Lys Glu Pro Tyr Met Glu				
705		710		715
Gly Val Asn Pro Phe Ile Lys Ser Asn Lys His Arg Met Ile Met Phe				
	725		730	735
Leu Asp Glu Leu Gly Asn Val Pro Glu Leu Pro Asp Thr Thr Glu His				
	740		745	750
Ser Arg Thr Asp Leu Ser Arg Asp Leu Ala Ala Leu His Glu Ile Cys				
	755		760	765
Val Ala His Ser Asp Glu Leu Arg Thr Leu Ser Asn Glu Arg Gly Val				
	770		775	780
Gln Gln His Val Leu Lys Lys Leu Leu Ala Ile Thr Glu Leu Leu Gln				
785		790		795
Gln Lys Gln Asn Gln Tyr Thr Lys Thr Asn Asp Ile Arg				800
	805		810	

&lt;210&gt; 19

&lt;211&gt; 390

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 19

Met Ala Val Ser Glu Ser Gln Leu Lys Lys Met Val Ser Lys Tyr Lys				
1	5		10	15
Tyr Arg Asp Leu Thr Val Arg Glu Thr Val Asn Val Ile Thr Leu Tyr				
	20		25	30
Lys Asp Leu Lys Pro Val Leu Asp Ser Tyr Val Phe Asn Asp Gly Ser				
	35		40	45
Ser Arg Glu Leu Met Asn Leu Thr Gly Thr Ile Pro Val Pro Tyr Arg				
	50		55	60
Gly Asn Thr Tyr Asn Ile Pro Ile Cys Leu Trp Leu Leu Asp Thr Tyr				
65		70		75
Pro Tyr Asn Pro Pro Ile Cys Phe Val Lys Pro Thr Ser Ser Met Thr				
	85		90	95
Ile Lys Thr Gly Lys His Val Asp Ala Asn Gly Lys Ile Tyr Leu Pro				
	100		105	110
Tyr Leu His Glu Trp Lys His Pro Gln Ser Asp Leu Leu Gly Leu Ile				
	115		120	125
Gln Val Met Ile Val Val Phe Gly Asp Glu Pro Pro Val Phe Ser Arg				
	130		135	140
Pro Ile Ser Ala Ser Tyr Pro Pro Tyr Gln Ala Thr Gly Pro Pro Asn				
145		150		155
Thr Ser Tyr Met Pro Gly Met Pro Gly Gly Ile Ser Pro Tyr Pro Ser				
	165		170	175
Gly Tyr Pro Pro Asn Pro Ser Gly Tyr Pro Gly Cys Pro Tyr Pro Pro				
	180		185	190
Gly Gly Pro Tyr Pro Ala Thr Thr Ser Ser Gln Tyr Pro Ser Gln Pro				
	195		200	205
Pro Val Thr Thr Val Gly Pro Ser Arg Asp Gly Thr Ile Ser Glu Asp				
	210		215	220
Thr Ile Arg Ala Ser Leu Ile Ser Ala Val Ser Asp Lys Leu Arg Trp				
225		230		235
Arg Met Lys Glu Glu Met Asp Arg Ala Gln Ala Glu Leu Asn Ala Leu				
	245		250	255
Lys Arg Thr Glu Glu Asp Leu Lys Lys Gly His Gln Lys Leu Glu Glu				
	260		265	270
Met Val Thr Arg Leu Asp Gln Glu Val Ala Glu Val Asp Lys Asn Ile				

	275		280		285										
Glu	Leu	Leu	Lys	Lys	Lys	Asp	Glu	Glu	Leu	Ser	Ser	Ala	Leu	Glu	Lys
	290					295					300				
Met	Glu	Asn	Gln	Ser	Glu	Asn	Asn	Asp	Ile	Asp	Glu	Val	Ile	Ile	Pro
305					310					315					320
Thr	Ala	Pro	Leu	Tyr	Lys	Gln	Ile	Leu	Asn	Leu	Tyr	Ala	Glu	Glu	Asn
				325					330					335	
Ala	Ile	Glu	Asp	Thr	Ile	Phe	Tyr	Leu	Gly	Glu	Ala	Leu	Arg	Arg	Gly
			340					345				350			
Val	Ile	Asp	Leu	Asp	Val	Phe	Leu	Lys	His	Val	Arg	Leu	Leu	Ser	Arg
		355					360				365				
Lys	Gln	Phe	Gln	Leu	Arg	Ala	Leu	Met	Gln	Lys	Ala	Arg	Lys	Thr	Ala
	370					375					380				
Gly	Leu	Ser	Asp	Leu	Tyr										
385					390										

&lt;210&gt; 20

&lt;211&gt; 391

&lt;212&gt; PRT

&lt;213&gt; Mus musculus

&lt;400&gt; 20

Met	Ala	Val	Ser	Glu	Ser	Gln	Leu	Lys	Lys	Met	Met	Ser	Lys	Tyr	Lys
1				5					10					15	
Tyr	Arg	Asp	Leu	Thr	Val	Arg	Gln	Thr	Val	Asn	Val	Ile	Ala	Met	Tyr
		20						25				30			
Lys	Asp	Leu	Lys	Pro	Val	Leu	Asp	Ser	Tyr	Val	Phe	Asn	Asp	Gly	Ser
		35				40					45				
Ser	Arg	Glu	Leu	Val	Asn	Leu	Thr	Gly	Thr	Ile	Pro	Val	Arg	Tyr	Arg
	50				55				60						
Gly	Asn	Ile	Tyr	Asn	Ile	Pro	Ile	Cys	Leu	Trp	Leu	Leu	Asp	Thr	Tyr
65				70				75						80	
Pro	Tyr	Asn	Pro	Pro	Ile	Cys	Phe	Val	Lys	Pro	Thr	Ser	Ser	Met	Thr
			85					90					95		
Ile	Lys	Thr	Gly	Lys	His	Val	Asp	Ala	Asn	Gly	Lys	Ile	Tyr	Leu	Pro
		100					105					110			
Tyr	Leu	His	Asp	Trp	Lys	His	Pro	Arg	Ser	Glu	Leu	Leu	Glu	Leu	Ile
	115				120						125				
Gln	Ile	Met	Ile	Val	Ile	Phe	Gly	Glu	Glu	Pro	Pro	Val	Phe	Ser	Arg
	130				135					140					
Pro	Thr	Val	Ser	Ala	Ser	Tyr	Pro	Pro	Tyr	Thr	Ala	Thr	Gly	Pro	Pro
145					150				155					160	
Asn	Thr	Ser	Tyr	Met	Pro	Gly	Met	Pro	Ser	Gly	Ile	Ser	Ala	Tyr	Pro
			165					170					175		
Ser	Gly	Tyr	Pro	Pro	Asn	Pro	Ser	Gly	Tyr	Pro	Gly	Cys	Pro	Tyr	Pro
		180					185				190				
Pro	Ala	Gly	Pro	Tyr	Pro	Ala	Thr	Thr	Ser	Ser	Gln	Tyr	Pro	Ser	Gln
	195					200					205				
Pro	Pro	Val	Thr	Thr	Val	Gly	Pro	Ser	Arg	Asp	Gly	Thr	Ile	Ser	Glu
	210				215				220						
Asp	Thr	Ile	Arg	Ala	Ser	Leu	Ile	Ser	Ala	Val	Ser	Asp	Lys	Leu	Arg
225				230				235						240	
Trp	Arg	Met	Lys	Glu	Glu	Met	Asp	Gly	Ala	Gln	Ala	Glu	Leu	Asn	Ala
			245					250					255		
Leu	Lys	Arg	Thr	Glu	Glu	Asp	Leu	Lys	Lys	Gly	His	Gln	Lys	Leu	Glu
		260					265					270			
Glu	Met	Val	Thr	Arg	Leu	Asp	Gln	Glu	Val	Ala	Glu	Val	Asp	Lys	Asn

275		280		285
Ile Glu Leu Leu Lys Lys Lys	Asp Glu Glu Leu Ser	Ser Ala Leu Glu		
290		295		300
Lys Met Glu Asn Gln Ser Glu	Asn Asn Asp Ile Asp	Glu Val Ile Ile		
305		310		315
Pro Thr Ala Pro Leu Tyr Lys	Gln Ile Leu Asn Leu Tyr	Ala Glu Glu		
	325		330	335
Asn Ala Ile Glu Asp Thr Ile	Phe Tyr Leu Gly Glu	Ala Leu Arg Arg		
	340		345	350
Gly Val Ile Asp Leu Asp Val	Phe Leu Lys His Val	Arg Leu Leu Ser		
	355		360	365
Arg Lys Gln Phe Gln Leu Arg	Ala Leu Met Gln Lys	Ala Arg Lys Thr		
	370		375	380
Ala Gly Leu Ser Asp Leu Tyr				
385		390		

<210> 21  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 21  
 caagagggag agcaagccta

20

<210> 22  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 22  
 aagcctttga cccctttgat

20

<210> 23  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 23  
 ggttcagtcc gttgtccact

20

<210> 24  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 24  
 gtgtggagtc accagaccct 20  
  
 <210> 25  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Primer  
  
 <400> 25  
 gcttctactt gcagcccatc 20  
  
 <210> 26  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Primer  
  
 <400> 26  
 cttaaattggg aggcacagta gaat 24  
  
 <210> 27  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Primer  
  
 <400> 27  
 cagtacactt tatgcttggg agaa 24  
  
 <210> 28  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Primer  
  
 <400> 28  
 gtaaccgcga caccaatttc 20  
  
 <210> 29  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Primer  
  
 <400> 29  
 gtgagacatg gggatgacct 20

<210> 30  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer

<400> 30  
 cgtctcaggc cttcagtgag

20

<210> 31  
 <211> 12  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Synthetically generated peptide

<400> 31  
 Ala Pro Arg Arg Thr Arg Val Asn Gly Asp Asn Arg  
 1 5 10